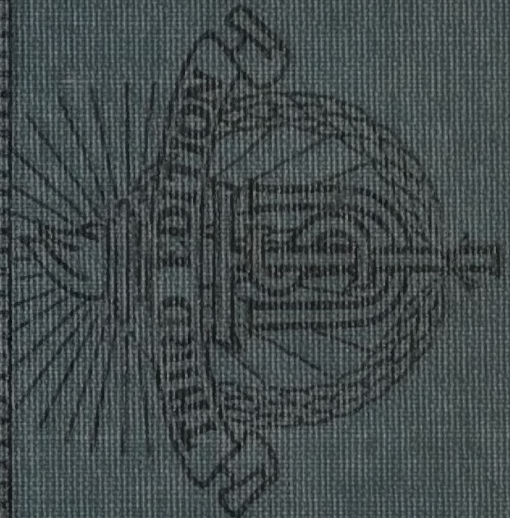


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M4
1920

FT MEADE
GenColl

MODERN LESSONS ON CALCULATING MACHINES



BY

E. L. NELSON



Class QA75

Book M4

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Modern Lessons
On
Calculating Machines

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no 1

INTRODUCTORY.

First and important instruction in addition on the Calculators.

When adding a figure, first put the finger on the key representing that figure, and then push the key down with a firm, medium quick stroke, and then by immediately lifting the finger up, allow the key to come all the way up. When lifting the finger **do not** lift it high from the key, but just about one-half inch higher than the top of the key.

Practice this push-stroke on a few additions and you will unconsciously learn the right key-stroke and thereby be an absolutely accurate operator from the very first. This method develops speed and smooth operation.

Learn to operate the Calculators by the TOUCH METHOD. Do not learn the old sight method as too much time is lost in looking from the work to the keyboard. Touch method is just as simple and admits of almost unlimited speed.

NOTE TO TEACHER.

In our machine department, we are using calculating machines with 8, 9 or 10 rows of keys. It is very difficult to obtain uniformity in answers, unless one follows the plan we have adopted. In practice work, i. e., in covering the lessons in this text, use only the 8 columns at the right of the machines. Omit the others. After completion of course, it is a very simple matter for the pupil to make use of the extra columns.

LESSON A.

Place a blotter between the rows of 5 and 6 keys.

To add 9 strike 4 and 5
To add 8 strike 4 twice

To add 7 strike 3 and 4
To add 6 strike 3 twice

To make touch operating very simple the odd keys 1, 3, 5, etc., are made with cup-shaped tops and the even keys 2, 4, etc., with flat tops. Use the first and second fingers of the right hand. Keep each finger on its own column. Find the keys by feeling as much as possible. Go slowly and carefully; speed will come later.

No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7
12	36	43	38	59	84	67
45	34	63	43	64	25	67
38	13	12	26	12	97	33
54	32	84	13	47	65	54
11	55	23	48	62	27	44
34	35	32	34	45	28	64
36	88	28	63	43	26	25
12	26	27	26	33	29	37
42	24	36	21	35	13	77
33	35	63	36	83	21	52
<hr/> 317	<hr/> 378	<hr/> 411	<hr/> 348	<hr/> 483	<hr/> 415	<hr/> 520

LESSON 138.

Find amt. of bill.

Use disc. equiv. card.

Multiply by dec. equiv. instead of taking
off per cents.

1—195 lb. @ 12 $\frac{1}{2}$ c less 12 $\frac{1}{2}$ -5
 2—96 $\frac{1}{4}$ lb. @ 19c less 25-10-5
 3—125 lb. @ 25c less 60-5
 4—92 $\frac{1}{2}$ lb. @ 9 $\frac{1}{4}$ c less 15-10-10-5-21 $\frac{1}{2}$
 5—179 lb. @ 15c less 15-7 $\frac{1}{2}$ -5
 6—125 lb. @ 25c less 10-5-5
 7— 96 lb. @ 1.25 less 65-21 $\frac{1}{2}$
 8—179 lb. @ 4.50 less 35-5
 9— 29 lb. @ 21 $\frac{1}{2}$ c less 33 $\frac{1}{3}$ -5
 10—175 lb. @ 19c less 40-10

LESSON 139.

To add fourths and halves, reserve 2 places
at right for decimals and place in machine
decimals for the fractions.

Add

175 $\frac{1}{4}$
 174 2/4
 179 $\frac{1}{4}$
 134 $\frac{1}{2}$
 129 $\frac{1}{4}$
 128 $\frac{3}{4}$
 127 $\frac{1}{2}$
 129 $\frac{1}{4}$
 176 $\frac{3}{4}$
 175 $\frac{1}{2}$

LESSON B.

Add the following by placing the 1st finger on the third column, the 2nd finger on the second column, and the 3rd finger on the first column.

Don't move your fingers from their own columns. Remember to place the finger on the key desired and push it down until you feel it strike bottom.

1	2	3	4	5	6
4.65	6.43	3.75	2.43	4.56	3.45
3.33	2.34	5.76	7.56	2.21	5.21
1.25	3.75	3.46	4.67	5.61	7.56
6.78	4.96	3.51	2.24	3.33	3.56
3.11	4.22	3.56	4.36	2.24	3.33
5.25	4.34	4.36	4.36	2.27	3.33
1.50	5.09	3.27	1.11	2.27	4.98
6.67	8.87	8.98	2.45	2.56	4.67
4.32	5.43	6.54	6.54	3.24	5.22
2.25	6.11	4.78	2.66	4.45	5.43
7.67	8.54	4.56	5.25	2.75	3.24
5.56	4.96	7.78	4.16	3.14	4.16
<hr/> 52.34	<hr/> 65.04	<hr/> 60.31	<hr/> 47.79	<hr/> 38.63	<hr/> 54.14

LESSON 136.

Percentages.

1. 5% of 245
2. 9% of 350
3. 15% of 1200
4. 25% of 37.5
5. 33% of \$150
6. 8% of \$37.50
7. 3% of \$180.25
8. $1\frac{1}{3}\%$ of 1050 lb.
9. $21\frac{1}{2}\%$ of 60.8 lb.
10. $121\frac{1}{2}\%$ of 560 day.
11. $1\frac{1}{2}\%$ of \$540
12. $1/10\%$ of \$4000
13. $3/7\%$ of 217000 ft.
14. $3/4\%$ of \$48.50
15. $33\frac{1}{3}\%$ of 965 days.
16. $16\frac{2}{3}\%$ of \$.54
17. 15% of 9/10
18. $66\text{-}2/3\%$ of 2-2/3
19. 12% of .45
20. $61\frac{1}{4}\%$ of .75

LESSON 137.

1. What % of 75 is 4.5
2. What % of 125 is 25
3. What % of 120 is 40
4. What % of \$450 are \$90
5. What % of \$192 are \$32
6. What % of \$760 are \$19
7. What % of \$1000 are \$5
8. What % of \$6 are 45c
9. What % of 75 lb. are 16.5 lb.
10. What % of 20 ft. are 1.2 ft.
11. What % of $37\frac{1}{2}$ yd. are 5 yd.
12. What % of .75 is .15
13. What % of .60 is .45
14. What % of $5/6$ is $1/3$
15. What % of $4/5$ is $2/3$
16. What % of $21\frac{1}{2}$ is $3/4$
17. What % is 75 is 25
18. What % is 225 is 15
19. What % of 750 is 25
20. What % of 1000 is 25

LESSON C.

Divide the following columns and add the cents first, with the 1st and 2nd fingers. Leave the total of the two cents' columns on the register and add the units, tens and hundreds of dollars with the 3rd, 2nd and 1st fingers.

Keep each finger on its own column.

Remember to place the finger on the key desired, and push it down until you feel it strike bottom.

1	2	3	4	5	6	7
354.00	122.00	354.64	375.45	73.23	375.45	75.00
573.68	65.98	443.45	345.64	133.75	198.67	235.21
21.33	127.43	100.67	54.67	22.98	45.21	25.00
100.87	60.45	45.00	45.76	32.75	80.00	98.23
32.40	22.65	45.78	10.00	78.21	210.24	178.80
167.68	100.00	78.61	423.54	67.85	121.23	143.45
236.35	453.67	10.00	456.10	887.67	340.34	677.87
33.00	25.25	188.78	64.10	12.50	500.00	456.22
345.65	600.00	498.00	690.87	546.78	76.85	30.00
100.45	22.58	63.55	100.00	226.88	13.12	246.79
34.48	266.57	413.75	132.45	78.87	222.11	400.00
500.00	310.00	213.00	275.32	133.34	67.78	220.00
118.44	342.12	67.00	514.50	635.75	100.90	102.30
341.65	45.00	47.23	678.89	300.00	34.42	21.18
66.00	78.23	33.45	334.22	66.43	567.89	678.91
3,025.98	2,641.93	2,602.94	4,501.51	3,293.99	2,954.25	3,588.96

Note: After sufficient practice, operators are able to add columns like the above without dividing them, but the divided method should be used a short time at the outset.

LESSON 135.

Multiplication—Right to Left.

1. 7.46×3.12
2. 469.45×8.9
3. 19.5×14.75
4. 176.5×75.45
5. 12.92×17.75
6. 18.91×17.76
7. 31.96×81.75
8. 17.76×19.98
9. 31.79×16.69
10. 18.89×76.43
11. 19.91×18.98
12. 17.5×16.94
13. 21.7×18.98
14. 31.7×17.75
15. 196×75.12
16. 19.99×71.54
17. 19.76×18.98
18. 19.74×18.76
19. 12.92×17.76
20. 19.98×17.76

Note: Co. mencing with this lesson, solve the 25 problems and hand to teacher your answers.

REVIEW LESSONS.

ADDITION.

LESSON B-1.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
69	12	93	15	18	96	44	29	88	12	16	17	12
91	41	64	18	71	83	46	43	87	26	17	16	17
34	63	83	21	63	37	49	68	86	83	18	13	19
68	81	71	33	49	44	91	91	85	79	21	21	21
43	93	84	46	65	56	76	73	84	63	69	17	23
81	95	25	85	93	19	67	89	83	84	43	21	79
69	34	63	91	75	18	33	72	82	96	86	26	86
73	51	71	73	86	17	45	69	81	86	69	79	91
81	69	85	84	69	16	12	92	80	73	50	34	92
73	34	63	92	79	15	16	83	79	84	93	47	38
34	16	75	17	44	14	19	96	78	45	84	12	75
75	18	83	15	99	13	26	91	77	56	63	21	76
69	23	38	18	88	12	91	52	76	67	93	31	84
38	16	69	26	77	11	44	63	75	78	41	41	83
64	15	41	17	66	10	93	36	74	89	39	51	22
33	18	14	19	55	39	85	45	73	91	73	61	79
26	26	33	26	93	64	96	56	72	92	69	81	76
48	17	44	18	68	12	86	67	71	68	74	92	88
69	13	55	14	73	23	93	78	70	53	58	93	77
38	26	66	33	91	49	91	89	59	42	49	94	33
19	16	77	17	22	63	86	91	—	61	61	85	26
43	15	88	19	17	84	83	90	—	—	73	86	—
—	14	99	81	14	94	92	89	—	—	86	77	—
	13	—	61	—	68	56	—	—	—	—	88	—
	11	—	—	—	56	92	—	—	—	—	99	—
					83	61	—	—	—	—	—	—
					15	—	—	—	—	—	—	—

14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
29	19	29	26	22	26	19	18	20	21	22	23
93	26	76	34	32	25	20	26	27	28	29	30
76	76	83	43	42	21	22	49	48	47	46	45
73	84	75	58	52	23	24	44	43	42	41	40
83	73	85	93	62	25	26	38	37	36	35	34
89	86	91	76	73	27	28	26	25	23	22	17
77	44	76	84	86	29	30	19	17	16	18	15
89	76	37	92	94	31	32	26	25	24	23	26
91	84	93	91	79	33	34	19	17	26	15	12
92	96	39	46	86	36	35	12	12	12	12	12
86	25	46	83	68	37	38	79	76	75	74	73
86	84	35	81	79	40	39	68	69	70	71	72
77	96	49	92	33	41	42	67	66	65	64	63
99	84	53	84	96	43	44	58	59	60	61	62
73	92	37	99	48	45	46	57	56	55	54	53
86	73	94	86	53	47	48	34	59	60	61	62
91	86	76	46	84	49	50	33	32	31	30	19
92	94	83	92	91	51	52	18	17	16	15	14
53	93	76	87	56	53	54	—	—	—	—	—
56	84	38	94	77	55	56	—	—	—	—	—
—	—	—	—	94	—	—	—	—	—	—	—
				56	—	—	—	—	—	—	—
				94	—	—	—	—	—	—	—
				96	—	—	—	—	—	—	—
				84	—	—	—	—	—	—	—

Note: Your paper will be corrected and handed back to you. Immediately solve again those wrong.

LESSON 134.

Inventory Oct. 6, 1917.

96 lb.	Coffee, Grade A.....	.45
198 lb.	Tea, Grade A.....	.54
596 lb.	Coffee, Grade B.....	.37 $\frac{1}{2}$
469 lb.	Tea, Grade B.....	.28 $\frac{1}{4}$
796 lb.	Coffee, Grade C.....	.24
849 lb.	Tea, Grade C.....	.17 $\frac{1}{2}$
546 lb.	Spices.....	.28 $\frac{1}{4}$
796 lb.	Sugar.....	.12 $\frac{1}{2}$
464 lb.	Pepper.....	.07 $\frac{1}{4}$
196 lb.	N. M.....	.12 $\frac{1}{2}$
498 lb.	R. Pepper.....	.18 $\frac{3}{4}$
696 lb.	Cinnamon.....	.19 $\frac{1}{2}$
464 lb.	Nutmeg.....	.24 $\frac{3}{4}$
964 lb.	Salt.....	.04 $\frac{1}{3}$
569 lb.	Ginger.....	.29
969 lb.	Lard, No. 1.....	.45
694 lb.	Lard, No. 2.....	.38
696 lb.	Butter, No. 1.....	.62 $\frac{1}{2}$
896 lb.	Butter, No. 2.....	.50
275 lb.	Beans.....	.08 $\frac{1}{4}$
769 lb.	Cabbage.....	.05
650 lb.	Apples.....	.12
960 lb.	Peaches.....	.18 $\frac{1}{4}$
393 lb.	Ham.....	.25
696 lb.	Pork.....	.24 $\frac{1}{2}$
949 lb.	Flour.....	.10 $\frac{3}{4}$
896 lb.	Potatoes.....	.08 $\frac{1}{4}$
296 lb.	S. Potatoes.....	.10 $\frac{1}{4}$
369 lb.	Onions.....	.18 $\frac{1}{4}$
196 lb.	Crackers.....	.10 $\frac{1}{2}$
496 lb.	Cheese.....	.18 $\frac{1}{2}$
399 lb.	Starch.....	.08 $\frac{1}{4}$
864 lb.	Corn Meal.....	.07 $\frac{1}{3}$
946 lb.	Turnips.....	.17 $\frac{1}{3}$

Note—Extend and foot.

O. K.

Note: Continue turning in your answers to your instructor until lesson is marked

LESSON B-2.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
71	29	29	18	86	29	11	21	29	29	26	53	74
86	31	76	17	87	76	22	76	76	28	27	54	75
56	76	84	16	88	38	33	89	37	76	28	55	76
69	38	32	15	89	43	44	73	28	81	29	56	77
78	79	79	14	90	22	55	89	37	46	30	57	78
54	63	86	13	91	32	66	76	96	32	31	58	79
75	84	35	12	92	42	77	89	84	89	32	59	80
86	92	92	11	93	66	88	96	55	91	33	60	81
37	76	86	10	94	77	99	88	29	91	34	61	82
79	39	71	18	95	88	19	98	76	78	35	62	83
63	73	29	19	96	99	91	76	88	59	36	63	84
84	84	28	76	97	76	11	89	92	76	37	64	85
79	75	27	77	98	32	87	92	76	32	38	65	86
73	86	26	78	99	92	78	73	55	43	39	66	87
45	12	25	79	89	78	67	88	88	89	40	67	88
69	13	24	80	88	43	76	77	96	76	41	68	89
73	14	23	81	87	79	37	76	22	32	42	69	90
82	15	22	82	86	63	92	75	96	94	43	70	—
63	16	21	83	85	88	84	74	76	88	44	71	—
79	17	20	84	84	29	83	73	88	77	45	72	—
76	18	19	85	—	71	82	77	98	76	46	73	—
38	19	—	—	—	32	81	—	—	—	47	—	—
49	—	—	—	—	33	—	—	—	—	48	—	—

14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
91	17	77	26	26	26	26	16	26	27	29	26
19	23	88	79	46	33	34	13	27	28	28	37
39	76	96	78	33	86	89	14	31	63	43	38
76	19	34	33	96	92	92	91	45	92	69	59
13	26	93	19	81	96	63	36	48	84	73	76
26	73	89	71	92	33	84	48	49	79	82	84
19	83	76	33	88	48	92	39	50	34	96	48
18	19	34	19	76	96	63	72	81	59	87	58
17	76	92	71	38	88	34	36	83	56	93	68
16	83	78	36	49	94	96	84	96	79	42	96
15	17	86	63	63	96	84	92	98	39	33	38
21	26	55	17	92	88	92	12	59	59	76	96
17	19	92	18	36	96	92	71	32	68	89	31
19	21	76	71	41	96	38	68	12	91	72	72
21	63	33	29	92	15	43	14	61	76	29	83
71	76	89	91	88	19	34	12	29	83	48	94
61	84	96	76	96	21	88	18	39	92	61	75
82	96	33	34	33	26	—	81	45	76	29	86
93	88	88	17	98	34	—	92	55	34	32	97
81	—	19	33	49	96	—	76	89	91	76	78
—	—	76	96	50	88	—	79	—	—	84	89
—	—	33	—	—	—	—	80	—	—	—	—

LESSON 132.

1. 7968 x 4876
2. 2978 x 1234
3. 5678 x 7980
4. 3469 x 1234
5. 5678 x 9070
6. 3176 x 3980
7. 8460 x 3190
8. 3769 x 8946
9. 1879 x 7963
10. 7770 x 3964
11. 8196 x 7134
12. 4567 x 8908
13. 3440 x 7990
14. 3440 x 7960
15. 8176 x 2980
16. 1234 x 5678
17. 9070 x 3963
18. 1234 x 5678
19. 9876 x 5432
20. 7370 x 8140
21. 7369 x 3128
22. 8176 x 3170
23. 1350 x 4968
24. 1849 x 1849
25. 7670 x 7670
26. 1234 x 5679
27. 7674 x 1892
28. 3468 x 1292
29. 8968 x 7962
30. 3432 x 1892
31. 3145 x 1296
33. 3176 x 1893
32. 1694 x 1298
34. 1753 x 1898
35. 3173 x 1898
36. 2743 x 1692
37. 3176 x 1892
38. 1976 x 1293
39. 1893 x 1492
40. 1373 x 2192
41. 1767 x 1293
42. 1892 x 1763
43. 2469 x 1875
44. 1943 x 1234
45. 1743 x 1934
46. 1234 x 8784
47. 1294 x 8984
48. 3465 x 1896
49. 1248 x 1765
50. 1912 x 1891

Then add results together.

LESSON 133.

1. 7963 x 17456
2. 8963 x 19458
3. 9647 x 79649
4. 8431 x 89698
5. 6171 x 87328
6. 3171 x 32928
7. 8473 x 17777
8. 3948 x 24567
9. 3938 x 37373
10. 8961 x 79328
11. 3469 x 89673
12. 8969 x 39679
13. 4342 x 31765
14. 9412 x 39692
15. 8615 x 37682
16. 8912 x 76514
17. 3946 x 39415
18. 3412 x 89646
19. 3919 x 34698
20. 3468 x 81765
21. 4968 x 71646
22. 8968 x 18746
23. 2198 x 31768
24. 1829 x 76431
25. 9176 x 18491
26. 7548 x 74689
27. 1898 x 34343
28. 7454 x 34158
29. 3963 x 18456
30. 3414 x 39176
31. 1765 x 39276
32. 1744 x 29276
33. 1755 x 89764
34. 1898 x 76545
35. 9654 x 84654
36. 1896 x 92646
37. 3176 x 31976
38. 2196 x 81456
39. 3199 x 78940
40. 2198 x 31760
41. 3199 x 39045
42. 1899 x 81046
43. 1788 x 31049
44. 1299 x 81968
45. 7681 x 31768
46. 3982 x 34545
47. 1879 x 84390
48. 9176 x 23456
49. 3456 x 81763
50. 7890 x 29270

Then add results together.

LESSON B-3.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
61	19	19	17	96	26	26	29	73	75	25	73	89
29	28	76	16	25	73	17	12	26	25	96	12	76
83	17	31	14	17	89	91	73	89	82	89	86	72
76	28	28	26	26	43	26	86	76	96	76	92	79
29	19	96	81	13	26	89	92	92	87	12	75	86
31	26	29	96	19	38	73	75	75	37	32	12	25
28	31	76	32	17	79	41	92	83	83	41	75	92
76	29	38	45	26	25	36	76	92	92	56	86	76
24	17	29	29	18	14	84	89	76	75	78	92	89
92	31	73	61	17	26	93	76	32	26	91	76	75
36	19	26	38	26	84	76	29	75	73	10	32	12
43	17	81	96	81	96	84	76	96	25	15	75	19
82	26	25	34	92	32	92	89	82	95	20	96	14
93	18	34	19	32	76	73	12	75	82	35	82	15
75	24	25	26	76	82	89	14	26	75	30	75	92
69	96	76	31	28	92	76	15	82	12	25	12	12
28	96	32	28	19	17	92	16	75	75	41	26	76
71	81	96	17	26	13	74	17	26	42	76	34	83
26	29	84	26	14	14	89	12	32	32	89	92	17
31	36	36	39	17	75	76	—	89	18	—	75	15
75	83	92	43	15	12	82	—	96	—	—	—	—
12	12	12	22	—	—	—	—	—	—	—	—	—
—	—	—	17	—	—	—	—	—	—	—	—	—

14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
76	26	59	78	95	12	84	76	26	26	23	41
89	83	60	79	96	76	15	84	17	36	24	42
12	96	61	80	97	15	19	92	71	46	25	43
75	95	62	81	98	12	76	75	26	56	26	44
16	87	63	82	99	17	12	12	35	77	27	45
82	97	64	83	98	96	71	76	75	88	28	46
75	12	65	84	97	81	29	19	19	99	29	47
19	75	66	85	96	43	36	75	26	11	30	48
16	17	67	86	95	26	84	92	81	12	31	49
86	19	68	87	94	76	95	76	79	13	32	50
75	24	69	88	93	19	96	25	38	14	33	51
92	17	70	89	92	12	97	16	19	15	34	52
76	16	71	90	91	75	85	83	46	16	35	53
82	18	72	91	90	86	92	12	18	17	36	54
75	19	73	92	89	92	76	92	17	18	37	55
19	20	74	93	88	71	34	75	15	19	38	56
12	22	75	94	87	82	—	19	12	20	39	57
17	17	76	—	—	—	—	12	17	21	40	—
15	16	77	—	—	—	—	12	18	22	—	—
14	—	—	—	—	—	—	15	19	—	—	—

LESSON 130.

1. 765432×81
2. 234567×24
3. 914382×73
4. 276329×24
5. 876316×53
6. 274329×71
7. 363245×13
8. 849263×14
9. 367298×17
10. 469386×34
11. 296329×85
12. 469328×32
13. 546328×49
14. 326743×73
15. 129364×28
16. 765179×29
17. 326178×42
18. 464179×32
19. 329179×46
20. 846129×23
21. 846128×75
22. 323176×54
23. 849126×53
24. 846176×42
25. 949142×72
26. 565174×18
27. 123123×73
28. 176243×89
29. 129176×84
30. 296176×42
31. 234649×81
32. 467329×26
33. 176128×32
34. 175314×75
35. 262178×76
36. 343176×83
37. 864129×73
38. 269764×82
39. 129176×71
40. 329493×69
41. 222333×75
42. 864129×71
43. 329769×28
44. 134689×73
45. 876129×25
46. 334176×71
47. 329176×82
48. 2323179×72
49. 767129×82
50. 179222×23

Multiply then add results together.

LESSON 131.

1. 765×894
2. 429×763
3. 893×276
4. 329×428
5. 846×763
6. 329×476
7. 377×876
8. 392×792
9. 893×765
10. 129×764
11. 323×717
12. 319×716
13. 291×123
14. 345×678
15. 890×170
16. 290×176
17. 291×761
18. 333×764
19. 292×381
20. 276×379
21. 222×364
22. 891×764
23. 292×176
24. 393×276
25. 119×376
26. 769×291
27. 329×726
28. 176×191
29. 291×761
30. 328×763
31. 843×292
32. 191×292
33. 364×393
34. 291×764
35. 816×292
36. 129×378
37. 176×298
38. 129×771
39. 329×292
40. 816×179
41. 292×292
42. 343×376
43. 819×416
44. 312×394
45. 296×179
46. 379×896
47. 394×123
48. 345×678
49. 890×1700
50. 3100×2000

Multiply then add results together.

LESSON C-1.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
176	276	276	296	123	297	276	479	176	178	276	179	279
196	371	879	198	456	796	373	276	294	276	475	126	176
184	495	496	146	789	848	475	381	859	138	476	379	129
265	896	329	156	126	596	576	276	365	176	576	896	176
729	792	843	134	346	796	899	793	465	276	276	293	126
843	846	726	276	579	879	796	891	708	476	175	876	276
769	725	471	179	896	498	876	792	318	898	276	295	398
843	471	929	976	971	793	376	276	254	278	175	846	496
726	876	876	841	765	876	846	796	859	596	129	371	598
845	326	291	594	926	594	296	276	364	296	126	296	179
961	478	748	765	848	796	391	595	918	176	176	848	296
843	296	597	848	595	798	476	296	364	278	576	596	871
726	765	697	176	926	797	328	576	544	177	476	726	376
841	726	777	275	767	596	876	276	271	198	593	721	594
726	843	444	345	898	777	325	171	272	179	176	848	128
879	961	333	456	596	898	864	276	169	186	129	733	176
726	727	222	789	761	276	971	891	843	176	298	266	276
894	848	176	—	—	375	276	476	304	878	276	799	199
—	726	198	—	—	476	328	—	898	596	143	465	378
—	898	—	—	—	898	—	—	—	—	176	871	175
—	—	—	—	—	—	—	—	—	—	296	—	—

14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
799	236	176	299	276	176	274	291	126	296	796	179
176	476	295	798	891	128	896	796	298	179	124	298
396	376	396	393	494	391	891	848	399	298	898	494
876	476	898	898	396	476	791	376	176	176	393	594
495	596	796	596	843	848	651	279	294	298	898	178
876	393	898	796	296	591	792	898	494	129	179	156
329	891	796	848	199	276	297	393	376	128	296	246
176	296	878	599	296	176	767	296	178	242	898	179
296	898	791	798	376	191	848	848	129	179	596	129
176	595	848	176	891	176	596	196	176	276	179	246
298	896	595	196	276	129	898	179	144	395	284	348
373	291	795	276	841	921	397	298	244	298	176	486
179	379	176	176	276	476	296	349	376	178	178	976
373	898	198	176	848	898	176	296	898	129	294	122
176	595	176	296	126	276	229	898	176	178	386	276
476	896	198	179	179	848	128	796	126	298	179	384
176	276	177	181	129	596	176	848	396	376	298	291
276	391	799	176	176	876	191	598	878	389	199	876
476	—	796	191	176	279	292	474	129	179	296	—
—	—	148	292	242	179	—	296	179	296	—	—
—	—	—	—	—	—	—	—	179	—	—	—

LESSON 129.

1.	1648 x 71	34.	969 x 12	68.	898 x 76
2.	754 x 24	35.	765 x 12	69.	964 x 12
3.	849 x 12	36.	898 x 76	70.	1775 x 71
4.	7962 x 15	37.	1454 x 89	71.	9176 x 15
5.	9643 x 12	38.	7161 x 12	72.	8946 x 17
6.	743 x 19	39.	8149 x 17	73.	9176 x 17
7.	7143 x 81	40.	3176 x 17	74.	8989 x 78
8.	1846 x 91	41.	8198 x 14	75.	8684 x 29
9.	943 x 82	42.	765 x 19	76.	7616 x 71
10.	1846 x 12	43.	898 x 17	77.	9148 x 12
11.	7912 x 13	44.	1776 x 71	78.	8675 x 12
12.	891 x 12	45.	1996 x 75	79.	9691 x 77
13.	2243 x 17	46.	996 x 79	80.	1892 x 76
14.	2243 x 17	47.	891 x 79	81.	1891 x 17
15.	7161 x 12	48.	1776 x 81	82.	1991 x 99
16.	9171 x 23	49.	1976 x 25	83.	1876 x 75
17.	8176 x 43	50.	1846 x 75	84.	1776 x 17
18.	1975 x 29	51.	1991 x 76	85.	1995 x 81
19.	1849 x 76	52.	1896 x 18	86.	1895 x 12
20.	1976 x 45	53.	791 x 76	87.	776 x 17
21.	1775 x 89	54.	1896 x 25	88.	996 x 89
22.	1876 x 43	55.	1991 x 76	89.	776 x 79
23.	9176 x 41	56.	8191 x 77	90.	943 x 12
24.	2191 x 76	57.	9176 x 19	91.	1892 x 17
25.	1843 x 21	58.	8415 x 16	92.	1998 x 79
26.	1891 x 23	59.	796 x 12	93.	1898 x 75
27.	179 x 12	60.	899 x 17	94.	1996 x 12
28.	891 x 12	61.	964 x 17	95.	8992 x 76
29.	765 x 18	62.	999 x 99	96.	1992 x 17
30.	765 x 12	63.	876 x 15	97.	1896 x 15
31.	891 x 76	64.	127 x 14	98.	1997 x 12
32.	843 x 17	65.	976 x 15	99.	1775 x 19
33.	843 x 17	66.	876 x 12	100.	9654 x 78
		67.	943 x 17		

Then add results together.

LESSON C-2.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
196	276	476	767	292	291	177	216	210	210	297	276	796
298	898	898	892	376	769	198	816	719	716	398	395	898
594	596	928	978	843	843	176	398	814	812	965	926	725
796	798	371	328	929	926	214	898	926	912	894	379	926
848	343	926	176	329	379	914	176	865	514	926	976	455
796	398	484	179	768	498	817	378	923	914	878	329	926
348	968	785	219	329	879	214	129	843	316	926	929	927
916	726	926	327	726	926	914	179	926	912	729	729	875
376	849	327	878	824	379	314	219	875	817	875	898	926
921	943	926	965	926	493	514	319	926	916	926	526	878
878	376	727	729	878	898	316	378	871	812	875	898	926
594	898	926	871	926	398	816	176	943	917	926	796	726
798	329	891	912	878	768	175	179	841	317	726	898	848
368	726	727	878	926	898	196	216	923	916	898	598	965
943	843	926	328	728	796	216	176	875	817	176	926	125
898	926	871	726	365	898	318	216	926	916	928	891	176
792	379	943	848	898	796	196	179	712	377	176	791	198
848	929	848	912	729	848	199	180	912	912	279	792	196
963	878	747	378	848	765	216	171	716	817	379	878	912
878	369	—	—	729	891	514	176	—	—	926	368	714
—	—	—	—	379	—	314	217	—	—	878	926	814
—	—	—	—	—	—	—	—	—	—	—	729	—

14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
216	291	279	217	129	276	216	297	676	216	725	176
819	726	898	318	178	379	843	398	323	379	926	219
721	843	596	191	129	329	916	465	878	476	817	716
926	916	871	129	178	179	817	297	529	892	916	871
878	891	296	128	216	216	217	398	276	329	217	276
916	726	798	179	514	314	179	476	329	726	825	319
214	729	595	216	912	916	180	396	269	843	926	291
976	891	875	314	817	814	126	797	329	763	879	876
848	920	296	912	912	813	181	873	726	925	298	261
726	720	894	814	148	216	192	926	878	876	725	376
329	320	276	612	179	912	191	897	579	298	928	871
726	421	379	179	216	156	175	324	276	729	176	378
891	765	928	219	814	651	196	427	321	843	217	716
726	891	315	716	314	928	216	729	298	726	918	819
817	923	414	812	916	176	817	829	197	916	276	217
916	726	926	794	812	198	912	723	198	814	875	619
817	893	179	185	914	121	275	924	216	926	193	291
923	926	128	196	174	174	176	876	319	876	819	716
871	878	127	174	—	175	—	376	—	—	—	817
926	—	147	—	—	176	—	—	—	—	—	—

LESSON 128.

1.	75 x 14	34.	72 x 15	68.	71 x 84
2.	39 x 28	35.	18 x 75	69.	19 x 77
3.	19 x 78	36.	12 x 34	70.	17 x 78
4.	14 x 56	37.	18 x 76	71.	18 x 92
5.	56 x 12	38.	39 x 46	72.	76 x 12
6.	14 x 58	39.	73 x 12	73.	12 x 34
7.	75 x 46	40.	18 x 96	74.	45 x 67
8.	18 x 23	41.	75 x 12	75.	18 x 92
9.	78 x 12	42.	18 x 92	76.	18 x 91
10.	32 x 43	43.	31 x 76	77.	91 x 17
11.	18 x 96	44.	75 x 12	78.	17 x 31
12.	71 x 38	45.	81 x 92	79.	31 x 16
13.	76 x 12	46.	31 x 76	80.	16 x 43
14.	31 x 76	47.	81 x 79	81.	43 x 12
15.	81 x 71	48.	91 x 76	82.	12 x 79
16.	18 x 75	49.	31 x 76	83.	79 x 14
17.	91 x 76	50.	12 x 34	84.	14 x 98
18.	84 x 12	51.	45 x 56	85.	98 x 15
19.	19 x 76	52.	67 x 78	86.	15 x 97
20.	38 x 45	53.	89 x 91	87.	97 x 12
21.	19 x 76	54.	10 x 71	88.	12 x 45
22.	81 x 76	55.	31 x 72	89.	45 x 17
23.	71 x 86	56.	18 x 45	90.	17 x 36
24.	18 x 76	57.	19 x 17	91.	36 x 17
26.	76 x 18	58.	13 x 71	92.	19 x 48
27.	91 x 12	59.	12 x 96	93.	18 x 46
28.	18 x 46	60.	18 x 45	94.	12 x 76
29.	31 x 76	61.	71 x 86	95.	13 x 71
30.	32 x 75	62.	13 x 75	96.	19 x 33
31.	75 x 14	63.	19 x 73	97.	18 x 75
32.	18 x 92	64.	18 x 75	98.	19 x 71
33.	91 x 72	65.	19 x 76	99.	18 x 76
		66.	81 x 72	100.	19 x 77
		67.	33 x 43		

Then add results together. .

LESSON C-3.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
796	741	641	999	123	446	892	994	884	123	476	446	888
847	822	928	888	475	738	735	728	253	456	538	926	927
328	639	829	442	618	374	461	631	663	789	421	357	664
549	945	633	728	736	935	843	472	721	996	845	922	843
936	370	426	561	124	841	299	846	845	638	638	649	299
891	628	791	843	791	262	646	574	397	548	216	225	876
678	541	845	295	846	749	749	637	616	390	931	843	432
549	286	236	674	239	843	524	922	542	443	649	932	725
218	732	458	813	945	463	391	647	327	892	275	615	834
327	639	819	476	643	799	648	392	695	471	847	843	438
856	842	694	822	728	848	516	541	417	616	622	739	762
739	640	446	475	614	543	888	265	269	923	936	645	841
843	928	226	633	723	725	996	731	928	845	475	228	926
920	137	718	895	849	616	729	428	637	721	777	731	854
637	224	462	417	437	932	442	596	543	394	647	467	753
819	639	724	965	619	274	722	375	291	816	993	764	928
724	819	395	672	728	637	354	428	843	445	824	476	289
693	624	847	849	562	125	664	635	285	842	735	938	647
847	445	619	728	725	733	738	814	664	992	827	215	329
246	816	462	641	448	842	299	777	293	728	648	845	466
721	296	928	888	175	999	894	666	725	659	934	925	758
932	724	—	—	—	647	253	724	814	496	816	624	777
739	—	—	—	—	428	395	—	865	—	237	777	664
848	—	—	—	—	—	—	—	—	—	442	—	—

14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
274	198	792	987	818	445	999	372	843	976	987	818
936	274	845	654	924	932	888	659	228	438	654	926
842	369	328	321	375	239	777	843	731	706	321	738
371	845	561	123	643	762	666	721	654	541	843	554
654	922	799	456	721	548	555	854	849	329	348	993
936	735	843	789	548	374	444	396	370	644	438	847
843	468	254	640	845	652	333	472	622	822	721	659
299	753	721	938	483	849	222	659	754	707	601	993
843	299	633	207	765	375	111	848	848	653	848	291
641	843	845	643	428	706	765	275	922	822	928	604
765	721	925	790	606	548	493	606	730	991	546	792
576	654	446	604	920	271	854	728	844	458	731	906
247	286	644	853	404	365	761	439	295	273	209	852
399	753	828	922	840	443	996	840	616	736	752	729
842	928	739	649	303	906	699	221	238	840	928	847
727	653	853	946	791	845	518	354	752	294	645	290
965	841	296	694	999	371	720	716	607	768	832	641
832	274	471	471	888	643	634	859	841	867	654	992
476	999	653	693	777	124	436	728	928	786	299	818
555	878	287	847	666	628	804	643	713	651	654	998
446	616	446	777	555	—	728	890	371	909	728	—
123	—	777	—	—	—	616	728	—	772	—	—
—	—	831	—	—	—	720	516	—	—	—	—

LESSON 127.

A

1. 8×9
2. 7×6
3. 7×8
4. 9×4
5. 3×4
6. 7×8
7. 3×9
8. 9×8
9. 7×6
10. 5×4
11. 5×54
12. 8×61
13. 7×24
14. 8×14
15. 9×16
16. 7×12
17. 3×19
18. 9×19
20. 7×15
21. 71×8
22. 89×4
23. 75×7
24. 81×3
25. 96×9

Then add results together.

B

Multiply—

2. 756×99
1. 756×9
3. 756×999
4. 756×9999
5. 756×99999
6. 756×98
7. 756×97
8. 756×998
9. 756×997
10. 756×9997

Rule: To multiply by 9, 99, 999, 9999, etc., multiply by 10, 100, 1000, 10000, etc. and subtract from the product the multiplicand. To multiply by 98, 998, etc., same rule only subtract twice the multiplicand. To multiply by 97, 997, etc., subtract three times the multiplicand.

LESSON D-1.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
7964	1896	2984	1379	9176	1998	1975	1260	7876	7175	2642	1648	9695
8926	1901	3684	1268	8928	7963	8985	1891	2931	2976	9176	1879	8594
9176	1876	1928	1432	7129	8145	5963	1981	1879	8976	8932	9178	7976
2938	2934	1785	1843	3176	9128	7564	1764	9178	8943	9695	8643	8924
4936	1986	1926	1729	9191	7129	8934	1865	8654	9128	8984	7691	1765
1978	3179	3179	1876	8787	7654	1994	1925	9695	7875	7675	8976	1926
2176	2979	1926	1901	2976	8962	1998	1876	2931	9695	9595	7974	7283
9191	3128	1879	1363	8148	7856	8989	1961	1875	7676	2981	7575	8976
7928	1849	2178	1879	1992	2931	7979	1876	1976	8989	7675	2976	1375
3179	1730	3196	1901	1743	2976	8963	1794	1775	1765	9292	8971	9176
3176	1920	8675	1876	1865	1998	7584	1998	2976	9178	8684	2976	7976
2179	1769	1976	1775	1929	7963	1994	7963	1875	8787	8585	3178	8978
2278	1849	2178	1936	1776	8493	1876	8965	1876	1765	9292	9129	1624
1976	1726	4197	1876	1779	1775	1776	1991	1991	9178	7676	8975	1971
3128	1348	3128	1909	2176	2176	2145	1876	1879	8989	8931	2916	1328
1943	1926	1876	1765	8199	1994	7890	2198	1992	7676	7675	3914	1879
1876	1876	3129	1929	3128	1876	1846	1779	1876	8989	9273	7915	1368
1929	2198	1765	1728	4176	2173	1790	1896	1775	7979	6981	8916	1829
1879	---	1943	1849	2976	9486	---	1996	1998	2931	---	---	1777
---	---	1777	---	8989	8179	---	---	2175	8465	---	---	---
---	---	---	---	---	3434	---	---	---	---	---	---	---
---	---	---	---	---	9698	---	---	---	---	---	---	---

14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
2961	2963	2964	2961	4961	2975	2931	2976	2988	1799	9645	1975
8968	7981	7874	1878	1876	1928	8976	9128	1788	1897	8675	1276
5938	3483	1928	1928	2175	1878	3946	7678	2966	1796	9128	3149
1728	9168	1778	1879	9281	1468	8943	2943	1965	1878	8179	8165
1828	3276	1896	1926	7963	1773	7673	8973	1878	1765	3148	9275
1729	8984	1779	1879	2175	1928	8948	2976	1926	2934	7676	8963
1365	7963	1902	1902	9283	1975	9177	9175	1775	1765	8989	8945
1897	1828	1806	1878	9179	1878	2977	8928	1878	2976	7675	9176
1963	1926	1976	1901	8278	1543	7877	7963	1965	3975	9134	3128
1897	1365	1778	1898	3451	1775	9198	2954	1926	4178	8976	8175
1796	1902	1824	1796	9263	1776	8179	8975	1776	5196	8776	9179
1775	1864	1916	1876	8975	1892	2973	9278	1225	6176	3449	3178
1963	1965	2716	1902	9276	1773	8479	8975	1963	7185	7676	1771
1879	1928	1948	1875	8484	1891	2976	2963	1898	8179	8179	1998
9176	1878	1876	1902	9276	1992	3178	8988	1776	7963	1248	1876
3129	1902	1991	1876	7574	1876	---	7987	1928	---	---	1341
8754	1965	1878	1991	---	---	---	3736	1878	---	---	---
---	---	---	---	---	---	---	2976	---	---	---	---

LESSON 126.

1.	2.	3.	4.	5.	6.
\$ 34.56	\$ 3.44	\$23.43	\$ 3.34	\$ 34.53	\$ 23.43
45.44	34.56	2.34	2.45	23.00	34.34
345.67	45.33	3.45	23.23	34.30	45.65
223.43	23.23	4.34	30.78	3.45	35.35
34.56	76.78	5.43	67.69	44.00	76.23
5.43	8.78	34.06	6.98	5.44	1.25
343.32	7.67	6.07	5.67	4.67	23.23
46.65	16.65	70.65	5.65	45.56	111.00
33.22	45.45	56.08	9.81	23.45	21.24
56.87	43.54	7.09	70.32	43.44	33.56
67.77	4.34	1.23	10.99	34.33	5.45
9.77	5.43	2.12	23.46	25.66	44.67
7.88	8.96	3.35	5.65	323.00	23.45
70.50	7.78	45.00	.57	120.40	56.67
3.40	8.76	33.40	6.76	2.36	34.34
40.30	34.45	2.04	4.54	43.56	5.67.
23.23	45.56	6.54	53.33	56.56	67.67
200.00	13.32	35.68	45.56	45.79	8.07
12.23	19.89	50.09	34.34	7.67	78.99
23.12	19.19	6.56	3.55	67.00	10.97
42.25	1.54	5.77	5.64	56.40	1.75
3.45	7.32	33.45	4.56	4.56	45.47
4.34	5.00	45.66	5.45	45.34	3.55
10.32	34.00	6.78	4.57	3.56	22.35
100.00	3.46	2.34	5.67	32.00	56.78
212.00	5.56	.24	5.67	56.67	8.77
23.00	34.67	4.45	6.87	65.60	34.56
3.23	64.43	55.34	3.66	75.56	55.34
65.44	30.56	33.55	13.57	44.66	20.23
45.46	40.00	4.56	120.00	23.00	125.00
35.43	55.00	45.66	24.54	56.56	54.40

LESSON D-2.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
7963	2648	1799	2961	7938	2973	7938	1276	2964	2974	1274	1779	7263
8974	1775	1876	1876	8963	3976	8963	8932	1893	1878	1328	1779	8948
7684	2963	1799	1223	7125	3763	8973	7912	1241	2968	1865	1276	1276
2976	1875	1432	1754	9238	8941	1763	7642	1365	1412	1275	1398	1312
8974	1779	1879	1812	4963	3273	1779	3129	1928	1719	1642	1876	1971
3875	1213	1773	1992	7938	3176	1299	3178	1775	1213	1775	1976	1273
2976	1419	1829	1875	4936	2453	1787	8976	1244	1314	1445	1323	1799
9278	1849	1463	1774	8432	1624	1628	3176	1363	1912	1775	1763	9971
3978	1365	1799	1232	2976	1973	1432	1295	7943	1763	1223	1273	3876
1991	1773	1543	1876	3976	3176	1275	1642	1777	1841	1475	1879	1271
1879	1498	1879	1328	8941	2128	1379	1314	1333	1263	1776	1973	1273
2964	1899	1599	1775	1493	1843	1276	1915	1843	1991	1343	1443	1943
3481	1766	1766	1973	1376	8476	1775	—	1296	1276	1898	1274	7934
2976	1899	1328	1643	2179	3198	1896	—	1743	1343	1777	1378	1931
1919	9999	1824	—	3128	2123	2176	—	1249	1892	1278	1931	1736
1215	8888	1212	—	8988	3176	8999	—	1376	1712	1376	1276	6938
1465	7777	—	—	7177	2471	1465	—	—	1943	—	1891	7961
1254	6666	—	—	3238	3636	—	—	—	—	—	—	1693
1879	—	—	—	—	—	—	—	—	—	—	—	1898

14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
3793	1976	7176	2976	1978	2723	7943	2911	7973	2973	7712	2971
1939	1234	1278	1325	3643	1879	1848	7612	1278	1383	2916	3972
7971	3179	1898	1874	1976	9173	1763	8912	8973	1779	2916	8473
1734	8198	1275	1798	1898	3713	1978	7914	3773	1848	6916	5972
1896	3276	5723	9643	1396	8712	1263	1716	4884	1938	2716	3682
1791	1941	3275	8456	1793	1976	1649	1816	1976	3938	6716	9276
1236	7673	6323	7576	1873	3926	1723	1712	2723	2723	2923	3176
1875	8946	2333	1928	2968	1848	1648	1514	8974	7673	8926	2976
1276	1278	3435	7576	1368	1949	1949	1312	4938	3729	8926	8980
1398	3129	1968	1298	1963	1276	1969	1719	3878	7926	7931	3976
1276	8976	1369	1763	1879	3943	1296	7943	7676	8641	1936	1233
1871	1279	1273	1896	1928	8976	1758	8671	3232	3879	1728	3934
1734	1329	1375	1365	1354	1275	1275	1273	2336	9734	1943	2936
2973	1479	1996	7938	1963	1926	1972	1948	1998	7938	1723	1763
8976	7675	1336	1838	1878	1365	1612	1875	1875	1789	1743	1898
3128	3641	—	7938	1912	1912	—	1973	1976	1276	—	1948
3269	1246	—	3718	1719	—	—	1276	1375	—	—	—
2936	1898	—	1978	—	—	—	—	—	—	—	—

LESSON 125.

1.	2.	3.	4.	5.
\$56.46	\$ 77.66	\$ 868.67	\$313.57	\$89,767.49
34.24	99.88	676.34	745.74	67,545.66
78.78	24.35	353.56	565.67	54,232.25
45.45	46.68	667.65	343.24	65,056.06
34.23	58.69	454.68	464.53	70,500.07
89.89	23.23	456.43	756.56	65,350.03
68.46	44.33	634.34	123.12	46,060.79
23.56	77.55	867.56	232.35	76,050.07
34.12	34.36	745.34	544.56	65,405.98
57.46	57.67	367.89	333.45	87,660.67
35.68	99.77	234.56	453.42	91,919.19
14.13	11.33	323.89	674.53	19,191.91
56.45	26.48	567.89	246.35	64,336.05
44.34	38.59	434.12	794.51	75,000.76
77.56	65.86	167.45	545.67	60,000.06
33.22	47.24	245.34	634.34	58,547.73
11.44	53.65	334.23	654.23	79,863.47
33.77	46.76	489.89	342.45	63,120.61
66.88	45.65	535.35	655.78	29,757.65
46.46	23.43	635.13	742.46	53,231.38
57.13	67.44	746.23	535.35	87,674.65
68.78	55.33	143.34	342.35	96,764.63

6.	7.	8.	9.	10.
\$34.23	\$656.76	\$1,231.34	\$324.66	\$50,605.07
78.56	445.44	2,333.46	650.68	30,400.72
34.79	545.79	3,225.67	760.55	20,704.09
56.45	751.24	4,434.58	405.08	80,020.06
24.23	336.79	5,212.35	760.54	86,006.78
64.24	655.76	6,567.67	456.54	40,450.45
32.43	466.35	7,657.79	343.44	54,023.07
88.76	336.78	8,655.68	705.07	76,045.04
46.55	876.44	9,545.45	466.07	13,030.23
65.43	455.47	6,454.55	317.89	42,032.30
77.66	343.45	9,866.44	750.56	50,506.07
34.23	456.34	7,867.56	455.60	65,070.08
78.78	123.12	4,534.23	606.04	70,000.08
77.66	223.21	1,212.45	333.02	40,530.40
24.11	334.56	43,32.34	667.07	23,304.40
35.45	545.66	7,554.55	908.60	64,045.08
67.57	643.45	4,564.37	303.32	70,550.06
78.78	989.68	8,784.58	205.50	58,066.77
34.34	556.57	6,767.34	678.47	67,605.06
35.12	232.34	3,434.56	453.04	56,024.03
43.51	535.43	6,676.77	635.07	35,045.02

LESSON D-3.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
2978	7988	2976	1275	2965	7272	3176	7172	2963	4963	2963	7962	7981
8963	3979	8775	1376	1874	3737	8972	8963	8943	8963	8923	1296	3912
9375	1968	7676	1892	3176	7273	1612	2961	7962	3926	3642	1896	3916
7586	3978	3975	1226	2673	8963	1879	1763	1373	8973	1691	2172	8971
2986	1736	7681	1376	8912	8971	7192	1261	1902	6971	1893	1871	1263
3978	1948	3928	1973	2916	9263	1873	1369	1764	1792	3631	1912	8972
3978	8918	1876	1876	1317	7673	3738	2973	1906	3643	1263	1316	3128
3723	3917	1222	1902	1716	8471	1963	3791	1898	1262	1963	1891	7962
1973	7516	1365	1303	7171	1763	3961	1263	1902	1769	2162	1296	3127
1758	8914	1892	1865	8196	1896	1223	1892	1763	1363	1871	1879	7123
7683	3970	1912	1906	3192	1365	1891	7172	1773	1892	1921	9176	8972
2973	7070	1376	1307	1765	1923	2623	7273	1906	1793	3631	8971	3643
8943	3970	1875	1912	8963	1731	1841	8486	1763	1232	1872	3163	8943
2973	7034	1902	1306	7673	1263	1262	9691	7364	1369	1772	8912	3172
8988	1948	1773	1912	3172	1892	1971	3687	3614	1892	1365	7168	3273
3879	8176	1864	1365	2731	2931	1273	3736	4613	1312	1926	2972	8962
2976	3276	1903	1763	3962	1763	1643	2971	3617	1916	1875	---	3962
7973	3177	1875	9173	8923	1912	1892	1796	7617	1816	1912	---	3964
8988	7788	1906	8172	7926	7173	---	---	---	1219	---	---	9123
3988	1776	1703	---	---	---	---	---	---	1319	---	---	---

14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
2962	1262	2973	1763	2691	1763	1272	7963	2162	1763	1972	9691
3173	1864	8972	3963	3631	2973	1793	8963	7162	9128	2973	8976
8962	9126	3963	8962	1928	1976	1892	8973	8172	9742	8972	3128
3961	8971	8972	3971	1226	2973	7643	9123	9172	8923	2972	8962
3143	3972	3926	7171	1798	8972	8972	7123	9999	8971	5973	6172
8941	2723	8972	3962	1898	3972	1398	8143	8888	3621	3642	3963
3962	8962	3963	1892	1763	6893	1763	7641	7777	3763	3742	8942
3972	1262	8976	3962	1926	6273	3973	3944	6666	9176	1971	3128
3973	3143	2936	2693	2973	8974	8946	3944	5555	3126	1793	6942
4973	8962	8932	1893	9276	7976	3972	8964	4444	8976	8973	1242
4973	2631	7642	1263	3928	8973	3976	7194	3333	3972	---	1943
4973	1773	3926	1892	1876	7673	8943	3121	2222	3973	---	2453
4973	1892	3172	1763	9173	7674	9263	3121	1111	8972	---	---
1261	1223	2673	1396	3926	8972	7641	8121	1219	3963	---	---
1362	1865	3963	1793	8943	3976	3972	9121	1716	9263	7643	---
1463	1912	1872	1892	7692	1271	8912	3965	---	---	---	---
1565	1743	3963	2173	7973	1372	3963	4965	---	---	---	---
1666	1779	2972	1898	---	1893	8972	---	---	---	---	---
1777	---	---	---	---	1793	---	---	---	---	---	---

LESSON 124.

1.	2.	3.	4.	5.
\$ 56.31	\$ 767.55	\$6,660.42	\$45,654.34	\$ 456.56
65.43	566.89	4,454.56	23,434.45	4,333.34
43.64	777.67	7,676.53	45,403.45	45.56
34.52	355.69	9,867.65	66,566.56	65.44
78.76	124.35	3,454.56	66,444.43	3.45
78.87	566.08	4,545.45	23,205.66	561.23
16.54	980.87	2,344.56	34,012.12	7,223.50
27.67	750.65	3,436.78	16,523.67	4,345.45
48.65	345.45	8,567.78	31,201.67	56.65
94.32	453.45	5,434.32	54,040.40	34.45
56.85	677.05	7,656.54	56,754.46	78.87
47.54	566.66	9,075.67	64,454.77	676.76
68.87	344.48	5,454.54	22,237.85	400.45
56.54	544.56	1,988.76	42,350.59	2,354.56
34.56	677.79	2,304.66	64,130.45	7,656.70
19.87	788.99	7,566.89	20,340.00	72,325.60
26.73	353.34	3,346.55	30,530.00	5,000.00
52.51	355.32	5,334.56	43,035.66	3,325.00
44.54	876.64	7,567.67	54,345.69	45.56
23.33	567.56	3,443.44	66,677.68	1.25
36.87	745.04	9,853.22	54,555.67	3.46
96.77	787.45	1,350.56	77,400.04	45.45
78.65	566.86	5,045.67	30,000.03	3,350.60
65.65	536.54	5,567.89	54,356.89	6.55
77.76	666.79	2,233.22	23,233.58	46.78
45.56	124.74	3,445.45	34,545.67	3,405.62
56.67	865.66	4,344.45	54,346.79	454.60

6.	7.	8.	9.	10.
\$ 125.00	\$ 325.00	\$ 34.45	\$1,000.00	\$ 654.45
1,250.00	66.00	50.00	25.00	335.00
4,500.00	100.00	500.00	335.50	2.45
250.00	50.00	25.77	678.50	66.45
375.00	34.76	654.50	10.00	40.20
50.00	1,250.00	43.12	34.45	235.67
125.00	135.00	5,000.00	50.00	2,500.00
100.00	566.54	75.00	500.00	349.90
500.00	57.07	32.35	25.77	125.00
1,000.00	22.53	50.00	654.50	34.42
250.00	650.02	23.45	43.12	56.45
123.00	75.05	56.76	5,000.00	78.79
75.00	37.50	50.00	75.00	3,435.00
90.00	2,500.00	100.00	32.35	4,503.43
250.00	225.00	76.45	50.00	345.00
50.00	100.00	35.57	23.45	543.50
135.00	50.00	750.00	56.76	33.50

LESSON E-1.

1.	2.	3.	4.	5.	6.	7.
\$62,724.86	\$ 7,624.73	\$ 1,928.46	\$ 7,298.76	\$5,748.96	\$68,429.73	\$962,754.17
88,459.72	3,843.96	4,467.98	8,884.42	371.22	99,842.75	3,649.52
67,549.64	748.73	29,462.75	39,877.61	6,274.18	768.77	7,776.86
3,789.42	28.45	84,274.76	44,126.93	1,628.45	399.28	5,442.91
6,854.37	19.65	7,648.53	772.46	962.47	64.92	675.18
2,859.68	288.77	9,928.39	829.54	328.93	77.49	428.72
724.63	6,439.28	6,437.28	733.81	2.69	18.26	120.40
929.46	375.42	28.43	67.42	17.28	44.53	377.28
871.43	8,472.62	98.75	38.96	5,422.19	98.72	6,849.54
268.64	748.39	128.45	27.53	1,144.16	649.73	3,622.75
738.97	275.14	6,845.19	7,264.72	378.45	248.54	3,274.18
1,648.48	146.54	63,847.28	8,892.75	220.47	792.18	6,645.28
22,754.18	2,873.90	38.43	3,843.29	637.90	67,427.95	371.46
649.28	673.98	299.87	7,853.46	845.34	64,347.84	843.29
374.62	245.18	736.35	8,996.58	4,446.42	7,624.50	674.36
19,999.86	735.27	28.42	3,742.52	7,643.98	9,684.75	471.28
7,856.43	614.29	79.56	892.74	627.85	236.40	63,848.30
2,975.16	843.28	371.24	368.42	293.47	843.71	4,475.16
764.68	237.94	856.59	729.68	628.39	1,746.54	9,928.46
784.38	1,628.43	265.43	543.78	438.54	228.96	3,742.54
724.63	2,956.47	7,776.84	762.94	6,674.89	16,474.28	371.26
9,963.71	1,394.92	2,943.78	1,828.43	2,259.46	13,147.22	945.82
28,479.61		944.28	2,735.46	7,274.18	16.49	748.60
		777.36	7,776.89			
			444.36			

8.	9.	10.	11.	12.	13.	14.
\$ 2,648.50	\$ 4,628.75	\$ 74.92	\$ 6,498.22	\$84,376.92	\$ 6,849.22	\$ 6,492.38
7,243.98	13,643.92	68.45	397.15	71,764.38	29,874.16	5,427.56
66,472.75	629.54	2,124.71	284.29	29,479.83	47.98	2,275.18
1,828.42	1,448.98	624.88	6,758.20	66,876.54	6,642.89	6,644.21
3,796.58	726.59	9,245.18	8,422.39	29,479.63	4,434.26	3,384.92
375.44	18.43	768.40	648.75	88,426.51	78,567.84	7,647.80
843.92	249.56	239.26	271.52	97,634.84	1.26	5,437.22
729.99	9.36	785.64	6,371.87	28,438.72	13.74	6,171.54
1,643.85	46,962.71	2,842.71	45.45	69,849.20	29.51	2,275.18
22,874.16	184.28	365.84	962.74	3.71	184.72	6,174.38
4,428.43	1,365.47	926.58	28.43	168.45	1,648.52	5,422.18
928.73	249.52	4,716.84	1,648.59	2,853.36	99,842.75	9,936.87
674.56	79.54	2,918.56	28.43	7,859.42	684.71	6,171.82
384.37	2.97	721.90	3,928.70	16.98	368.42	5,486.90
2,842.89	164.75	842.59	6,284.84	54.22	2,971.48	6,175.82
66,645.97	28,492.18	7,646.81	92.92	1,648.59	16.43	8,498.53
2,845.33	7,645.24	43.75	724.65	7.68	18.39	2,762.54
298.56	2.85	896.54	3,434.39	137.42	44.76	9,192.50
721.62	14.93	267.93	2,862.40	16,845.21	6,478.97	8,172.43
18.45	728.50	848.24	729.38	284.73	2,243.50	2,765.96
9.00	64,928.73	6,272.18	616.29	68.45	718.41	6,275.84
.36	76.49	7,648.20	76.85	29.73	399.42	3,797.20
1,777.76	18.45	93.45	9,998.78	61,791.42	66,476.84	
		27.68				

LESSON 123.

FIGURE PAY ROLL FOR WEEK ENDING SEPTEMBER 18, 1918.

Emp. No.	Fri.	Sat.	Mon.	Tues.	Wed.	Thurs.	Rate
1	9	9	9	9	9	9	.42
2	9	9	9	9	9	9	.42
3	9	9		9	9	9	.42
4	9	5	9	9	9	9	.42
5	9	5	9	9	9	9	.42
6	9	9	9	9	9	9	.42
7	9	9		9	9	9	.42
8		9	9	9	9	9	.42
9	9	9	9	9	9	9	.40
10	9	9	9	9	9	9	.40
11	9	9	9	9		9	.40
12	9	5	9	9	9	9	.40
13	9	9		9	9	9	.40
14	9	9	9	9	9	9	.40
15	9	9	9	9	9	9	.40
16		5	9	9	9	9	.40
17	9	5	9	9	9	9	.35
18	9		9	9	9		.35
19	9	9		9	9	9	.35
20	9	9	9	9	9	9	.35
21	9	9	9	9	9	9	.35
22	9	9	9	9	9	9	.30
23	9	9	9	9	9		.30
24	9	9	9	9	9	9	.30
25	9	9	9	9		9	.25

15.	16.	17.	18.	19.	20.
\$64,692.81	\$6,479.84	\$2,479.20	\$1,664.80	\$18,492.76	\$6,172.80
5,428.73	3,275.56	6,348.54	922.71	5,475.98	9,654.75
9,928.36	8,874.22	1,928.73	637.82	428.16	3,281.90
7,142.54	347.90	6.49	5,428.93	737.45	6,464.64
2,096.48	684.37	8.76	1,776.85	1,828.90	8.92
7,022.92	12.16	36.48	3.70	7,642.88	7.54
6,845.18	6,175.14	175.18	8.45	2,345.67	18.36
3,745.17	29.76	2,275.14	29.68	7,249.60	78.42
2,291.54	68.47	7,649.28	75.42	7,274.89	293.71
3,245.76	3,192.73	3.20	764.82	6,345.28	548.83
2,291.48	64.89	7.92	936.87	3,792.50	2,945.70
5,643.27	2,842.90	16.45	4,543.28	2.43	6,374.56
7,221.98	3,875.42	269.50	1,643.71	7.69	374.20
6,175.43	68.47	4,496.23	285.48	18.28	968.40
2,962.54	99.38	728.56	762.93	59.46	371.29
1,721.36	26.43	275.14	849.26	7,642.89	4,462.75
298.40	6,471.80	1,828.45	7,649.50	3,728.54	8,896.73
721.64	3,976.20	3,671.50	3,268.74	1,848.36	6.47
848.20	245.28	3,278.68	926.81	72.89	2.93
98.72	721.53	724.50	762.54	68.45	8.49
36.42	849.46	165.90	278.59	622.71	2,275.18
79.99	375.98	1,777.77	643.27	548.53	7,262.48
	843.21	641.92	926.80	84.63	2.74
	6,175.15			78.56	13.26

21.	22.	23.	24.	25.
\$8,428.70	\$6,175.24	\$2,274.90	\$29,246.82	\$1,996.74
169.45	3,892.15	673.52	7,246.59	2,849.33
27.16	2,768.53	928.45	375.28	3,684.59
7.35	1,639.28	376.98	64,927.80	1,234.59
.49	4,446.96	7,845.76	543.38	69.74
.08	16.26	3,743.54	728.83	36.93
29.72	54.71	2,792.40	643.79	6,475.18
1,648.51	39.28	3,748.53	285.47	3,843.29
6,364.82	246.59	6.59	19,684.32	63.71
375.28	643.24	6.33	444.94	68.45
761.45	729.50	29.75	6,464.63	2,843.29
2,975.52	633.71	67.43	28.45	7,245.18
6,471.19	9,926.84	2,845.80	9.21	96.59
62.73	2,753.45	3,764.38	16.48	63.48
282.49	7,726.80	63.98	276.84	295.84
37.96	643.72	56.43	928.56	726.84
2,754.36	16.30	371.54	721.53	627.37
3,928.73	843.29	875.62	92.75	4,496.80
64.15	1,636.45	2,845.84	29.64	7,143.29
271.39	27.59	3,768.59	6,469.72	2,646.28
6,274.18	36.43	61.72	68.45	79.22
54.43	28.54	54.30	27.36	164.71
927.66	164.71	375.18	6,275.18	1.78
	288.87			

SHORT INTEREST RULE.

1. Reduce yr. mo. & da. to mo.
2. Take money position on machine.
3. Multiply principal x months.
4. Cover figures in machine and multiply by decimal equiv. ($\% \div 12$)
5. Always fixed decimal point for answer.
 $\$125.00 - 5 \text{ yr. } 7 \text{ mo. } 20 \text{ da. at } 6\%$
 $5 \text{ yr. } 7 \text{ mo. } 20 \text{ da.} = 67,6666 \text{ mo.}$
 $125 \times 67.6666 = 8.45828$
 $8.45828 \times (6 \div 12 = .50) .5$
 taking $8.45828 - 4$ times instead of $5 = \$42.29$

RULE—Chain Discounts.

The simplest method for taking off discounts on individual items is the following:
 With an item for extension like $391\frac{1}{2}$ ft. copper wire at $18\frac{1}{2}$ cents per foot; discount 65-10-10-5%.

Make your extension, $391\frac{1}{2} \times 18\frac{1}{2}$, over the permanent decimal point, and the answer shows \$7.31.

Place the fingers on \$7.31 in large figures in the same columns that it stands in the register and multiply from left to right by the net of 65-10-10-5, or .26933, using the first figure one less, or .16933.

The rule for pointing off in this method is simple, for it is always one place to the left for each net discount that we multiply by.

Supposing that in the above example the discount had been 65-10-10-5 and 5. We would have made the original extension and the discounting as far as our dec. equiv. .26933 would carry us, and then for the last 5%.

Hold 1.97 over itself as it stands in the register and multiply from left to right by the net of the last discount (5%). or 95—actually multiplying by 85—and the answer with the decimal point one more place to the left shows \$1.87.

LESSON E-2.

1.	2.	3.	4.	5.	6.	7.
\$ 176.12	\$ 237.94	\$1,628.45	\$1,642.76	\$9,964.52	\$1,444.92	\$5,648.72
12.94	184.16	36.94	738.90	4,292.71	2.76	9.68
5.64	27.53	129.43	62.71	648.25	84.93	64.73
.10	121.47	3,841.90	548.28	6.96	2,164.62	2,848.90
375.18	69.74	76.81	6,787.42	18.49	92.72	18.42
17.19	1,828.43	6.43	296.58	28.72	8,472.68	726.60
376.84	962.72	179.54	4,724.64	162.68	4.29	4,371.84
296.45	1.96	3,842.92	849.90	1,848.22	16.48	642.72
15.45	48.55	7,638.28	28.56	9.36	2,896.34	96.48
175.18	126.93	472.84	762.45	7.22	2.68	767.49
29.17	1,734.90	1,924.68	7.96	471.95	44.22	28.54
1.45	842.68	724.84	4,275.84	1,628.73	196.89	2,642.71
176.12	62.94	6,278.45	622.71	6.42	54.72	84.98
29.32	175.63	737.92	8,497.98	444.94	1.68	263.71
126.12	2,845.36	68.41	6.94	16.29	6,428.90	5,490.84
39.41	12.62	299.85	13.56	44.52	184.49	743.86
1,149.12	154.96	7,246.50	175.28	968.72	26.56	292.67
14.15	7,254.28	88.92	2,172.90	4,279.28	2,874.20	1,848.22
18.15	19.62	108.75	6.48	643.89	9.27	649.53
2.91	179.46	6,646.96	9.32	29.56	18.45	816.28
871.43	2,244.82	287.94	18.49	76.40	666.66	1,728.92
81.96	92.75	16.49	264.90		789.42	
1.49	168.47				1,996.28	
1.49	168.47					
	2,748.50					

8.	9.	10.	11.	12.	13.
\$4,727.28	\$6,476.81	\$6,787.93	\$1,446.27	\$8,476.59	\$1,264.75
79.43	294.73	2,468.71	392.84	29.53	18.98
291.76	429.35	6.45	726.49	84.76	472.67
84.76	562.74	8.22	1,828.72	284.37	38.42
45.86	1,727.63	76.43	64.85	6,972.53	728.69
7,684.29	49.53	26,941.72	37.22	9.79	2.36
3.64	284.96	68.43	934.84	18.48	7,261.98
28.55	7,642.75	88,492.71	628.36	228.76	14.29
6,787.42	2.99	62.74	1,722.90	1,642.71	637.92
69.73	64.75	2.86	844.72	965.73	471.68
28.57	7.36	96,482.71	649.85	2,843.25	573.09
673.45	2,643.81	284.96	1,729.56	762.77	8,472.16
2,848.22	434.76	728.43	3,792.45	18.45	722.96
721.73	28.42	81,294.67	2.84	247.53	349.56
6,424.28	169.74	54.28	7.37	76.85	722.62
6.94	2,863.42	38,423.76	18.45	299.53	44.93
28.76	7.49	59.42	28.76	79.68	721.62
275.77	2.68	78.76	179.20	264.83	648.59
6,476.18	425.96	286.45	254.82	9,264.71	296.48
2.95	8,476.90	28,298.34	9,956.42	643.84	72.45
7.36	6,473.28	7,296.59	2,875.16	29.58	37.28
8.43	8,328.45	4,284.90	672.54	79.63	267.54
284.90	9,762.67	62,745.80	985.77		738.56
1.51	428.45	4,282.72			
	3.74	649.88			
	288.92	228.37			
	2.63	64,644.86			

LESSON 122.

1. From 1524 take 911.
2. From 3128 take 1519.
3. From 4055 take 2033.
4. From 27410 take 13520.
5. From 80500 take 30500.
6. From 123706 take 59341.
7. From 520200 take 368977.
8. From 80090 take 23084.
9. From 3406268 take 1998765.
10. From 303005 take 89700.
11. From 2046 take 1597.
12. From 40509300 take 9619475.
13. In Germany there are 2,436,000 land owners, and in France 3,226,000. How many more in France than in Germany?
14. A dealer bought 1,732 sheep and sold to A 51, B 147, C 34, D 1000, and to E the remainder. How many did E purchase?

14.	15.	16.	17.	18.	19.
\$ 6,754.28	\$27,647.97	\$ 7,642.99	\$ 9.27	\$ 6,272.22	\$ 849.28
327.56	84,272.68	1,896.54	6.43	428.52	717.42
9,272.89	94,527.63	726.38	1,829.77	337.96	1,963.49
4,454.26	528.65	472.65	428.45	18.25	1,338.76
3,928.72	721.93	19.98	6,276.89	276.54	6.58
58.45	845.72	6.79	4.28	79.56	19.63
27.96	628.51	18.22	16.56	6,666.66	48.87
172.54	327.98	9,272.46	928.75	444.44	293.54
37.28	642.85	2,875.19	4,454.71	1,729.27	4,653.33
6,845.27	72.63	4,494.62	228.43	14.48	275.18
3,926.72	88.94	7.96	69.74	129.53	63.96
5.41	276.59	14.75	286.59	76.85	3,943.84
8.75	7.36	28.43	761.92	2,848.73	7.68
2.38	6.49	927.65	9,654.21	69.71	1,547.90
66.58	18.28	846.37	6,398.45	628.56	294.18
2,298.84	76,864.71	2,849.53	284.35	9,654.72	4,446.96
7,767.54	36,472.85	792.48	766.56	228.49	16.28
648.21	99.99	561.84	1,829.48	762.54	37.90
79.68	64.78	72.48	26.54	68.75	54.28
22.96	69,843.27	19.76	69.76	226.92	172.45
728.45	96.94	6.73	1,486.53	7,262.48	671.52
2,697.54	63,729.53		9.19	37.93	798.37
	184.72				422.96
	684.77				736.41

20.	21.	22.	23.	24.	25.
\$64,387.28	\$44,928.72	\$ 6,274.89	\$64,842.56	\$ 9,176.48	\$48,762.84
35,462.79	679.86	9,385.56	37,928.63	5,399.27	33,745.93
6,666.41	438.52	7,272.64	28,492.91	6,749.82	67,964.85
394.28	762.45	729.51	648.50	3,254.76	7,198.54
1,729.45	18,248.28	738.59	1,939.28	1,849.28	334.72
63,728.52	6,175.47	264.86	604.28	3,371.62	849.53
9.68	998.49	47.93	35.49	4,596.54	278.49
4.29	721.63	89.75	67,478.93	9,871.32	6,275.86
3.27	85.96	66.54	543.28	6,438.47	4,479.22
16.94	728.64	9,648.53	709.53	1,829.56	6,748.53
26,437.85	64,278.93	8,472.61	4,784.52	7,261.73	842.71
2,856.34	92,765.31	745.92	729.68	8,172.54	62.75
7,298.35	3,472.58	804.15	44,444.44	2,849.53	88.49
218.43	7,245.76	269.40	379.25	7,928.59	38.47
798.24	18.95	6,745.81	638.52	648.22	6,275.18
843.26	4.76	928.75	4,856.90	347.96	8,428.45
4,438.90	848.28	622.54	721.40	842.71	7,263.45
64,852.45	769.55	972.48	872.59	674.58	2,647.91
37,292.76	18,294.85	6,849.20	26,922.75	936.27	262.74
4,472.80	6,472.51	3,842.94	47,854.88	16.48	848.36
649.50	9,948.72	628.54	6,493.54	33.97	921.75
371.28	268.47	9,999.98	234.45		62.78
	391.55		628.72		
			76.80		

LESSON 121.

1. At \$3 per ton, what will be the cost of 2680 lb. soft coal?
2. At \$7 per ton, what will be the cost of 1345 lb. cannel coal?
3. At \$36 per ton, what will be the cost of 4372 lb. phosphate?
4. At \$2.50 per ton, what will be the cost of 11075 lb. salt?
5. At \$34.50 per ton, what will be the cost of 116780 lb. pig iron?
6. At \$47.60 per ton, what will be the cost of 84725 lb. steel rails?
7. At \$125 per ton, what will be the cost of 15066 lb. sheet copper?
8. At \$4.50 per ton, what will be the cost of 9362 lb. land plaster?
9. At \$2.10 per ton, what will be the cost of 2640 lb. slack lime?
10. At \$35 per ton, what will be the cost of 1115 lb. guano?
11. What will be the freight, at \$5 per ton, on four cars of Mdse. of 21780, 23055, 41200, and 32460 lb. weight respectively?
12. At \$16.50 per ton, what will be the express charges on five boxes weighing respectively 186, 610, 241, 519, and 356 lbs.?
13. My furnace consumed, in one year, six loads of hard coal, weighing respectively 4125, 3960, 4305, 4440, 4055, and 3775 lbs. If the coal was bought at \$4.60 per ton, what did it cost to run the furnace?
14. A dealer stocked his yard with 17500 tons of coal, as follows: 850 tons cannel, at \$7.40 per ton; 52600 lbs. soft, at \$2.50 per ton; 193410 lbs. of egg, at \$3.20 per ton, and the remainder chestnut, at \$3.60 per ton. What was the value of the dealer's stock?

Note—Count over 5 places and set dec. point. Multiply from right to left, not dropping any figures. Mentally divide one of your numbers by 2. If \$3 multiply by 300, \$7—700, etc.

LESSON E-3.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
100	2964	8962	765	7923	2721	1742	2972	1762	7191	8926	7262	7262
175	115	176	126	8461	4932	875	1642	792	793	726	1986	1963
1428	10	2922	75	1292	162	2962	1875	19	896	19	2173	898
10	5	128	9	1672	12	891	961	182	91	898	898	19
175	15	96	12	172	179	12	126	1793	92	14	296	176
2926	165	3762	89	12	3941	364	1926	896	793	365	198	89
15	2963	128	176	619	172	1962	12	14	7962	12	75	7263
2025	172	91	1716	14	8962	762	841	982	171	14	175	898
196	24	6296	296	7382	179	19	19	17	92	19	345	1762
1296	5	128	843	12	2981	12	7198	372	172	7962	15	19
741	162	8961	12	172	796	898	126	1682	9173	898	7641	18
12	8942	365	75	9	7923	1742	12	126	692	79	762	176
6714	171	9273	175	125	861	369	9271	91	12	329	3872	74
175	292	172	1262	96	492	1777	17	1762	14	898	176	7134
69	3641	1711	765	175	16	898	171	191	16	16	2973	936
1222	125	292	891	1272	17	12	19	12	896	17	898	898
1741	9261	19	1742	198	18	13	2962	13	1942	326	1796	1962
171	126	1716	—	12	19	14	898	161	1962	196	—	176
19	8981	1218	—	8782	200	175	12	—	191	7173	—	—
—	126	1914	—	179	—	—	—	—	12	—	—	—
—	—	196	—	—	—	—	—	—	—	—	—	—

14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.
176	7932	7776	7972	1798	3416	7617	1767	7134	7532	7672	1777
198	198	1976	1642	765	1916	3819	941	8173	1868	1982	2773
7136	1451	275	179	179	798	1762	1875	298	943	1977	1763
192	798	19	19	14	15	3962	976	175	15	199	198
36	1361	393	292	55	964	1892	19	92	198	3269	891
19	7976	76	1841	98	3983	765	176	86	17	176	365
396	1864	276	362	179	777	764	84	75	3415	99	1942
1743	962	18	19	3444	66	763	1734	196	546	88	2742
896	875	17	362	761	111	89	963	88	7576	77	78
1275	12	363	1982	926	3333	88	18	7638	175	66	96
973	192	198	176	1731	999	87	763	196	19	55	55
7341	1898	17	1978	878	111	86	1743	71	3641	199	99
14	176	176	179	1962	3333	85	943	12	198	888	176
41	19	75	12	175	777	162	19	365	96	444	2972
39	18	179	176	91	33	163	91	1961	376	1723	1872
642	176	3962	92	12	44	164	361	892	19	1946	3272
1742	1992	1964	1965	176	55	12	8986	15	178	1343	176
1862	876	195	898	1741	888	7162	125	176	—	—	—
—	19	14	—	19	—	—	—	1962	—	—	—
—	—	8	—	16	—	—	—	—	—	—	—

LESSON 120.

1. If 1 lb. of candy can be bought for 25c, how many pounds can be bought for \$5.75?
2. At 33-1/3c per yard, how many yards of cloth will \$1542.50 buy?
3. A boy expended \$1 for almonds, at 16-2/3c per lb. How many pounds did he buy?
4. At 75c per yard, how many yards of cloth can be bought for \$572.40?
5. If I invest \$175.80 in eggs, at 20c per doz., how many dozens do I purchase?
6. A farmer sold 26 1/2 bu. buckwheat, at 87 1/2c per bu., and took his pay in sugar at 61/4c per lb. How many pounds should he have received?
7. A gardner exchanged 132 qt. of berries, at 8-1/3 per qt., and 75 doz. corn, at 12 1/2c per doz., for cloth at 25c per yd. How many yards did he receive?
8. If I exchange 1920 acres of wild land, at \$7.50 per acre, for an improved farm at \$125 per acre, what should be the number of acres in my farm?
9. A farmer gave 8 3/4 cwt. of pork, at \$7.50 per cwt., 15 bu. of beans, at \$3.25 per bu., and 46 1/2 bu. of oats, at 33-1/3c per bu., for 28 yd. of dress silk, at \$1.25 per yd., and 52 1/2 yd. of delaine, at 16-2/3c per yd., receiving for the remainder cotton goods at 12 1/2c per yd. How many yards of cotton goods should be delivered to him?
10. When potatoes are worth 66-2/3c per bu., and turnips 25c per bu., how many pounds of coffee, at 16-2/3c per lb., will pay for 24 bu. of potatoes and 18 bu. of turnips?
11. Having bought 1487 lb. A. sugar, at 6 1/4c per lb.; 872 lb. C. sugar, at 5c per lb.; 628 1/2 lb. Y. H. tea, at 33-1/3c per lb.; 522 lb. J. tea, at 25c per lb.; 650 lb. Rio coffee, at 12 1/2c per lb.; and 81 sacks of flour, at \$1.25 per sack, I give in payment seven one-hundred dollar bills. How much should be returned to me?

LESSON F-1.

1.	79 69 43 89 26 73 49 86 76 29 31 43 86 73 92 76 12 76 13 89 43	2.	29 43 16 19 81 76 29 43 79 16 23 76 18 15 17 23 16 18 19 20 21	3.	14 76 35 15 24 18 26 19 43 18 24 16 17 34 86 34 18 76 13 19 23	4.	21 76 18 43 17 26 18 19 43 18 19 76 23 89 76 23 76 18 43 17 19	5.	76 12 17 15 29 76 78 39 46 17 29 18 76 19 76 39 48 32 17 29 76	6.	24 76 18 17 25 19 76 43 76 13 81 76 19 28 73 43 81 76 23 76 19	7.	75 29 18 76 25 19 46 32 43 89 26 13 49 75 89 26 13 89 76 19 21	8.	29 13 83 41 26 75 18 17 43 83 93 36 93 17 13 14 18 19 21 23 26
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9.	81 43 26 13 18 17 26 13 26 19 15 81 51 61 71 28 19 76 18 13 12	10.	91 61 51 32 16 18 76 12 73 81 49 76 29 76 18 19 76 12 18 19 16	11.	12 76 12 19 76 12 89 76 12 79 86 12 43 19 73 18 76 19 76 12 73	12.	19 73 12 83 19 43 18 76 12 76 12 93 18 43 12 76 12 19 76 12 43	13.	76 12 13 93 18 76 12 92 43 18 76 12 96 15 18 23 34 56 78 91 12	14.	81 72 36 25 12 98 76 54 32 32 32 75 75 75 31 31 31 12 12 19 18	15.	12 21 21 21 21 21 73 73 73 73 86 86 91 76 12 83 76 92 81 72 12	16.	84 12 76 12 91 12 13 12 17 12 19 12 13 14 15 17 18 16 15 19 91
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LESSON 119.

1.	2.	3.	4.	5.
\$ 750.12	\$1.25	\$1.29	\$18.76	\$1,291.15
79.12	8.75	.79	12.75	17.12
873.15	1.79	.81	19.78	176.15
928.12	3.29	1.75	15.15	1,279.12
731.15	7.15	1.98	19.17	371.15
871.55	8.16	5.75	15.12	17.78
197.12	9.12	2.73	17.78	1,779.15
793.63	1.76	1.76	15.58	1.25
185.12	2.78	12.73	17.76	15.12
79.15	1.75	1.75	19.96	175.15
18.76	3.29	13.76	15.75	9,191.14
15.75	1.76	12.28	12.75	1,876.15
129.12	3.75	1.75	19.12	9,176.12
75.12	2.76	12.79	18.96	379.15
89.17	1.89	1.78	15.12	9,171.14
17.78	2.76	12.71	92.12	187.15
129.12	1.79	1.79	18.96	9,176.15
75.50	3.28	17.71	15.75	8,176.14
179.12	1.76	1.89	21.76	9,594.15
72.19	3.73	15.89	15.25	179.12
18.75	1.78	1.29	19.43	176.15
198.12	3.23	15.59	18.76	9,178.12
7998.16	1.76	1.69	15.75	8,176.12
176.15	3.73	12.23	18.79	9,178.15
12.75	1.29	1.79	19.12	8,176.14
179.12	7.56	12.41	91.76	9,176.12
7977.12	1.75	8.43	18.75	176.15
365.12	2.72	17.79	19.12	928.12
128.15	1.86	1.76	12.28	179.12
1776.18	5.75	12.28	12.29	376.15
129.12	1.29	18.59	17.79	896.15
3992.13	7.51	17.76	19.01	971.15
1886.12	5.65	18.76	15.08	912.28
175.12	1.76	12.28		
1886.12	1.29			
1776.15	1.76			
275.11				

17.	71	19.	20.	21.	22.	23.	24.	25.
71	76	76	19	18	19	19	15	19
71	12	12	18	16	26	79	16	26
29	81	43	26	29	12	12	29	15
16	19	76	12	17	76	76	34	25
14	43	19	17	15	15	12	16	18
15	76	43	43	18	18	43	26	76
7	12	12	18	81	31	18	18	15
8	48	20	76	76	41	24	26	28
9	20	17	12	12	52	16	12	13
10	17	18	19	93	63	15	76	17
11	26	12	76	82	18	18	15	26
12	12	12	12	17	76	29	19	15
13	12	12	73	16	12	19	29	29
14	19	43	43	15	73	76	18	19
15	43	8	19	18	12	15	26	86
16	8	15	76	26	91	14	15	26
17	15	2	12	13	46	13	19	13
18	2	17	13	17	18	12	29	81
19	17	12	15	15	12	19	31	91
20	12	69	16	12	79	18	43	73
21	69	—	18	91	15	15	18	26
—	—	—	—	—	—	—	—	—

LESSON F-2.
Foot and Cross Foot.

75	12	35	61	44	12	17	21	19
85	79	19	39	86	12	23	19	13
96	18	83	43	76	76	86	76	75
12	24	76	29	19	39	79	18	86
33	18	12	18	25	12	12	15	15
12	76	72	39	25	19	83	29	91
49	12	83	76	45	76	92	76	32
18	23	19	23	17	15	17	18	33
76	18	26	94	86	34	38	39	85
15	31	15	53	76	19	76	46	96
18	76	14	29	12	29	15	15	13
14	12	31	81	13	76	81	16	89
34	91	76	39	18	15	76	31	76
91	34	12	73	31	89	12	76	34
76	26	93	84	76	59	79	12	15
18	13	86	15	15	43	83	31	18
39	79	79	39	19	16	26	29	17
43	23	83	76	76	23	13	38	16
81	71	45	12	15	81	79	76	15
76	29	12	39	84	76	23	15	39
19	83	83	83	19	15	23	81	76
39	39	19	39	76	19	34	39	15
43	76	76	54	15	76	56	75	81
18	49	12	89	39	15	98	82	39
17	26	15	76	76	25	76	76	76
26	13	43	12	18	43	15	15	15
13	13	86	12	81	17	18	19	18
81	39	12	39	74	81	17	21	31
93	46	83	76	85	29	16	13	75
18	18	92	15	92	23	15	16	84
43	23	13	83	39	76	81	81	15
39	94	81	93	76	15	75	91	91
46	93	79	86	15	19	92	75	75
12	13	83	19	18	76	86	83	83
13	96	92	86	74	38	73	76	91
91	89	32	45	19	76	19	15	76
32	76	76	12	29	15	76	13	15

LESSON 118.

1.	2.	3.	4.	5.
\$0.75	\$1.75	\$12.51	\$175.12	\$7,176.15
.29	1.83	17.58	921.16	8,198.14
.68	1.75	12.63	875.12	3,176.15
.76	2.15	11.79	945.15	1,271.12
.92	1.29	15.75	375.12	1,829.17
.86	1.69	12.71	176.15	1,279.12
.75	1.78	13.83	275.14	1,375.11
.29	3.15	15.61	129.12	1,171.51
.15	4.12	17.79	375.15	1,269.15
.18	1.75	18.29	272.75	2,179.19
.19	2.23	17.76	192.76	8,178.15
.27	1.76	18.75	373.12	5,176.12
.85	2.75	12.26	976.15	1,277.14
.96	1.79	15.51	187.12	1,444.14
.75	8.43	16.15	973.15	2,176.15
.21	1.79	18.29	184.12	1,879.12
.75	1.28	17.15	363.47	1,776.15
.26	1.75	12.28	123.75	1,998.14
.83	1.28	17.76	129.15	1,276.15
.15	1.76	19.28	179.12	8,176.12
.17	2.51	17.54	272.15	1,276.15
.15	3.63	12.28	189.17	7,977.12
.14	1.76	17.51	175.12	8,976.14
.13	2.73	18.43	183.15	1,475.18
.81	1.78	19.76	263.15	7,512.15
.75	3.12	12.28	954.12	8,583.15
.91	4.15	17.76	186.15	1,976.14
.26	1.75	12.28	275.19	1,375.12
.71	1.28	17.51	185.15	3,176.88
.83	1.75	18.29	136.15	7,778.15
.75	2.26	17.76	198.12	3,373.14
.75	1.78	18.75	175.11	9,543.16
.86	3.45	12.26	176.15	
.76	1.12	17.75	198.12	
.75	1.79	19.46		
.83	1.58	15.54		
.74	1.75	12.25		
.72	2.16	17.75		
.84	1.78	91.76		
.79	1.79	81.79		
.28	5.40			
.19	1.76			
.91	2.13			
.83				
.75				

LESSON F-3.

1.	2.	3.	4.	5.	6.	7.
789	843	763	292	292	296	778
683	296	129	175	175	125	129
129	379	763	129	375	346	349
726	295	129	368	292	176	767
843	394	187	273	175	373	128
926	186	577	379	292	179	776
179	739	679	275	777	767	129
298	846	776	196	375	177	767
845	329	175	276	128	199	129
926	876	292	393	376	377	976
843	326	192	276	767	176	272
291	543	292	129	377	292	128
763	298	178	763	378	179	376
295	376	376	373	298	180	122
179	198	678	129	376	232	767
183	376	379	763	292	177	376
243	129	349	273	178	292	275
765	743	768	173	292	177	191
923	846	298	273	272	238	391
841	743	376	129	373	177	767
296	129	377	343	473	292	129
175	761	843	276	292	179	373
892	292	976	129	193	292	129
843	143	323	346	176	179	767
129	179	898	129	373	391	129
843	292	179	843	777	776	373
327	176	238	293	378	129	126
846	129	376	173	296	767	767
179	143	376	376	393	129	129
181	189	298	129	893	179	393
283	276	376	373	129	232	129
346	129	475	175	767	178	767
176	131	296	292	129	871	129
292	292	329	176	767	292	346
176	126	843	346	377	179	129
846	176	693	292	577	222	793
343	293	898	373	129	178	898
292	396	376	173	898	273	767
176	494	292	292	174	376	128
185	127	878	193	374	292	176
292	376	129	276	176	129	273
176	292	763	198	292	346	129
293	176	891	177	176	177	178

Add then add results together.

LESSON 117.

This is all one problem.

\$79.12	\$ 1.76	\$71.65	\$15.54	\$ 1.12
75.16	1.75	18.12	1.79	12.26
18.98	12.28	1.75	1.28	79.12
17.75	1.75	18.54	1.76	89.15
19.16	12.28	1.76	1.28	18.16
18.15	1.76	12.28	1.29	12.26
18.95	12.26	75.12	1.58	18.75
19.75	1.76	1.98	1.25	12.28
12.75	15.55	1.76	1.76	17.75
1.79	1.78	12.28	1.28	18.92
1.85	18.75	1.76	1.29	18.76
12.63	12.26	12.29	1.75	12.28
1.75	18.76	1.76	1.51	17.78
8.45	17.76	12.25	1.65	12.62
1.75	12.98	1.79	1.28	18.75
12.26	17.75	12.25	1.76	19.78
1.29	12.26	1.76	1.59	12.25
1.76	1.75	12.28	1.55	18.12
1.28	1.75	1.75	1.76	17.76
17.75	18.76	18.75	1.29	18.75
1.75	1.75	17.76	1.28	18.15
1.12	17.75	17.75	1.75	19.75
1.29	1.25	18.75	8.15	12.28
16.45	1.75	18.29	9.12	17.76
18.45	18.74	1.75	1.76	12.28
12.26	1.25	15.75	1.79	17.78
18.76	17.76	1.29	2.76	12.28
12.26	1.89	18.15	1.79	17.79
1.75	12.63	1.75	2.16	12.28
1.75	1.85	12.28	2.12	17.95
12.28	12.75	1.75	1.89	
17.55	18.92	17.76	1.76	

LESSON G.

1.	2.	3.	4.	5.	6.	7.
7.65	12.25	71.12	12.92	75.12	12.21	19.12
8.91	1.69	1.92	1.91	19.46	18.41	1.76
.25	3.76	.86	1.76	3.73	5.12	12.91
1.25	18.91	3.76	8.71	1.29	1.76	1.91
3.12	5.00	.29	.29	3.76	17.99	7.63
18.41	.75	.08	.15	1.29	1.75	12.91
12.00	1.29	.75	3.79	.34	17.75	1.76
1.91	18.41	4.69	2.72	.58	1.12	.91
3.75	1.98	.75	.18	3.63	.81	5.43
.65	31.76	.08	.15	1.29	5.65	1.29
.05	1.79	1.79	12.76	.79	1.12	3.69
3.08	.34	12.72	1.79	.81	2.92	1.79
4.63	.08	1.79	.29	16.64	1.17	12.92
18.71	1.96	.84	.45	1.92	2.63	1.89
3.29	18.76	3.79	17.18	18.79	1.29	15.89
.81	1.79	.75	1.79	1.76	3.43	1.76
.15	.29	.08	.81	.51	12.76	16.61
3.76	.81	4.12	.12	.29	18.91	3.76
1.29	13.76	8.46	.09	.18	3.76	18.91
.38	1.29	.12	.43	1.29	12.92	9.96
3.75	1.48	12.24	1.79	7.43	1.76	5.43
1.29	16.49	1.76	3.73	.12	12.92	12.26
8.43	3.76	.15	1.69	.19	1.76	1.69
12.00	.23	2.92	.71	.75	12.75	7.65
6.00	.08	.86	.15	.09	1.91	19.91
.50	.49	.54	2.92	.17	.75	5.65
.31	12.69	1.29	1.98	.89	1.69	12.75
8.43	1.78	16.41	3.63	.01	12.28	1.91
1.29	14.43	3.29	12.96	1.01	18.91	17.76
3.00	1.28	18.76	14.79	3.79	12.21	3.76
.79	7.69	5.79	.91	12.73	1.79	12.25
3.46	14.69	18.29	.86	1.69	18.73	7.65
16.43	2.22	.28	5.63	.79	12.24	1.96
8.41	1.76	.76	12.64	18.43	1.76	.75
9.36	.84	.10	1.92	1.69	15.78	1.76
5.12	5.69	.15	18.46	18.79	1.91	12.26
16.15	15.28	1.79	3.71	1.76	12.21	1.96
2.61	3.81	3.79	12.98	.12	3.76	9.76
.50	2.92	.86	.54	19.92	1.29	12.28
.81	1.76	5.48	.81	1.76	3.69	1.91
.50	15.43	12.46	3.76	.79	1.25	7.65
1.50	1.81	1.79	1.91	12.21	.12	12.92
3.91	3.96	.81	1.86	7.63	.18	1.76
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Add results together.

LESSON 115.

1. What is the selling price per dozen of hats, listed at \$36, and discounted 20% and 15%?
2. Find the net price of a ton of fence wire, listed at 9c per pound, and sold at 70% and 5% off.
3. Find the net cost to the purchaser of a bill of goods invoiced at \$1100, from which discounts of 20% and 25% were allowed.
4. An invoice of silk amounting to \$12,000 was sold Sept. 21, 1888, at a discount of 25%, 20%, and 12½%, with a further discount of 10% to be allowed if paid within 30 days. How much cash will pay the bill Oct. 15, 1888?
5. Having bought merchandise at 25% and 15% discount from the list price of \$1500, I sell it at 15%, 15%, and 10% from the same list price. Do I gain or lose, and how much?
6. A wholesale dealer offers cloth at \$2.40 per yard, subject to a discount of 25%, 20%, 10%, and 5%. How many yards can be bought for \$246.24?
7. What is the net cost of a bill of goods invoiced at \$2150, and sold at a discount of 15%, 10%, 5%, and 3%?
8. Three drummers, A, B and C, offer me the same grade of goods at the same list price. A offers to discount 25% and 15%; B 20% and 20%; and C 15%, 15% and 10%. With which will it be most advantageous for me to deal, and how much would I save from a list of \$200?

LESSON 116.

1. Find a single discount equivalent to a series of 10% and 10%.
2. Find a single discount equivalent to a series of 25%, 15%, and 5%.
3. Find a single discount equivalent to a series of 30%, 20%, 10%, and 3%
4. Goods were sold 25%, 35%, 20%, and 15% off; what single discount would have insured the same net price?
5. What is the difference between a single discount of 50% and a series of 20%, 20%, and 10%?
6. What per cent. of the list price will be obtained for goods sold at a discount of 35%, 20%, 15%, 10%, and 5%?
7. From a list price, I discounted 30%, 25%, 20%, 15%, 12½%, 10%, and 5%. What per cent. better for the purchaser would a single discount of 75% have been?

LESSON H-1.

1.	2.	3.	4.	5.	6.	7.
79.12	19.91	179.12	19.76	715.12	765.18	767.12
19.76	18.48	12.22	18.79	12.12	18.98	19.43
379.12	1.79	1.76	128.75	1.92	176.18	18.46
8.61	16.43	17.76	12.92	75.12	79.15	329.12
79.12	1.79	.79	1.76	12.92	7.65	19.72
379.15	.76	1.75	.15	175.12	769.48	7.67
12.92	12.79	1.79	12.96	89.16	75.12	18.43
1.76	175.19	12.92	175.18	75.12	373.18	1.92
7.76	226.15	179.15	12.92	179.12	12.92	226.15
.29	12.28	12.92	1.76	18.48	187.15	86.12
81.76	176.15	764.18	764.18	7.76	19.12	17.15
129.15	12.96	19.76	18.92	179.12	3.73	1.91
7.63	179.12	179.75	1.96	84.65	1.92	3.92
.28	.15	12.92	764.12	189.17	764.18	1.86
79.12	1.98	1.96	18.92	18.76	79.18	17.76
126.15	12.92	181.79	1.76	9.75	129.12	13.45
31.14	179.18	12.92	379.15	.12	18.49	1.96
129.17	21.68	1.91	78.14	.91	754.17	.85
3.92	1.79	17.76	7.76	3.91	18.73	.96
12.91	175.19	129.17	12.26	18.75	9.73	.12
176.15	12.92	15.45	1.96	9.76	741.37	.18
31.49	178.12	19.46	.89	176.15	12.38	.01
12.48	19.98	191.91	.05	89.76	9.76	17.19
1.76	1.76	17.76	.12	7.75	7.75	176.19
179.15	179.15	1.79	176.15	18.91	777.18	12.72
18.75	12.92	34.64	89.12	396.15	17.19	18.76
12.21	1.76	1.91	2.23	81.76	3.15	12.76
178.79	18.79	.76	18.46	175.12	19.76	1.92
12.25	1.76	1.92	289.76	89.18	764.12	18.76
1.92	179.18	18.92	17.76	179.12	12.26	1.97
.75	12.28	1.76	2.25	89.17	12.98	17.43
17.76	1.79	12.26	1.98	12.76	33.33	1.89
129.12	12.92	196.15	18.76	224.76	1.98	.76
176.15	1.79	1.91	176.12	75.12	12.96	12.42
12.19	18.43	12.92	95.15	373.12	1.76	7.41
18.46	1.79	196.12	15.75	73.15	12.92	19.98
12.25	18.76	1.92	1.79	1.98	3.96	8.96
175.19	12.92	17.18	176.15	.78	17.16	17.79
12.25	1.19	1.96	19.78	74.15	129.12	1.98
1.91	18.43	.89	8.78	196.15	17.43	18.76
17.65	1.76	.12	1.76	76.12	186.43	179.12
5.45	18.76	1.92	.79	89.12	12.72	18.43
12.92	1.91	18.79	1.81	176.15	196.15	1.91

Add results together.

LESSON 114.

1.	2.	3.	4.	5.
\$ 79.12	\$229.12	\$1.79	\$0.79	\$75.50
16.15	176.15	1.68	.76	12.25
175.12	18.98	1.79	.84	17.75
19.28	176.15	1.75	.96	18.75
17.65	12.29	1.29	.91	15.50
19.28	186.15	1.76	.86	17.70
179.15	18.75	1.89	.49	18.75
19.28	1.76	1.26	.75	17.75
17.58	1.77	1.76	.86	18.75
126.12	18.25	1.79	.91	17.75
1.79	179.12	1.28	.76	18.76
12.78	17.13	1.75	.75	19.75
1.75	1.76	1.29	.39	18.76
18.76	89	1.86	.76	18.75
12.25	1.76	1.79	.71	19.75
129.12	.89	1.75	.72	12.92
17.79	12.86	1.28	.81	17.76
18.26	1.79	1.75	.82	18.75
178.16	12.28	1.79	.76	12.26
17.25	176.15	1.78	.77	18.24
17.49	18.79	1.79	.79	17.75
117.75	1.76	1.81	.85	18.76
17.75	12.29	1.29	.76	19.75
178.12	1.79	1.76	.71	19.28
18.14	176.12	1.29	.75	17.76
175.14	18.79	1.76	.76	18.79
12.65	179.15	1.26	.85	19.01
179.12	18.72	1.76	.92	18.76
76.15	176.12	1.79	.93	18.28
178.14	12.92	1.26	.75	19.65
17.76	179.12	1.75	.76	18.76
129.12	12.22	1.28	.85	17.76
18.65	189.15	1.79	.75	18.98
178.16	18.17	1.26	.76	
12.28	196.12	1.76	.85	
176.12	17.75	1.79	.76	
18.75		1.81	.77	
		1.54		
		1.76		
		1.29		

LESSON H-2.

1.	2.	3.	4.	5.	6.	7.
179.12	89.12	757.12	169.43	767.43	329.12	762.12
168.15	1.43	896.15	81.76	12.74	18.43	19.98
96.17	18.45	323.70	2.75	8.92	12.72	1.96
1.29	3.76	19.70	91.29	12.96	19.23	73.12
17.69	79.15	3.12	1.79	1.19	18.76	89.12
1.75	3.73	2.33	21.98	.76	129.12	176.15
2.62	91.76	1.89	169.43	.12	19.76	91.75
.75	129.12	3.76	29.49	878.15	17.75	379.12
17.15	31.76	.12	1.78	79.76	292.76	178.12
19.45	1.48	.75	361.98	12.72	12.92	79.16
7.96	13.73	.12	16.73	1.98	17.76	179.16
.36	393.83	9.43	914.53	3.15	179.15	29.12
.98	17.65	8.76	12.62	1.29	18.76	134.17
12.75	192.12	98.74	1.79	89.76	375.12	12.98
3.93	39.16	3.96	18.75	129.16	19.84	14.76
12.98	381.77	2.98	393.73	89.14	7.63	373.12
1.75	272.43	12.92	18.46	3.76	179.15	129.17
22.76	196.15	18.76	12.74	.98	292.17	18.43
1.96	19.43	3.92	1.96	1.76	12.92	19.76
3.29	18.76	3.79	18.75	3.21	18.76	323.17
17.25	176.15	19.76	298.76	17.75	1.96	97.63
3.26	89.43	179.12	18.29	198.12	12.72	18.79
1.79	1.49	39.33	1.76	19.91	178.15	329.76
3.12	73.15	18.76	.25	18.96	18.75	18.98
2.18	175.12	129.12	.19	771.48	1.96	376.12
1.76	12.92	39.30	3.29	18.49	18.79	19.76
31.91	1.76	19.78	17.28	12.73	179.15	179.16
8.76	18.98	12.76	176.12	1.79	229.64	91.76
1.29	363.98	3.75	17.76	73.76	75.12	81.79
75.60	17.43	1.29	3.28	1.29	179.12	326.17
85.12	18.92	3.93	.79	737.18	75.12	19.91
3.12	176.15	18.43	778.12	18.43	178.15	376.12
83.17	96.15	916.53	83.12	1.79	96.12	18.76
1.92	1.79	89.26	7.78	.83	178.15	191.71
31.76	329.13	18.98	75.12	3.73	73.16	32.38
3.29	81.63	1.98	1.79	12.72	176.15	18.48
.79	19.43	.99	329.75	1.76	95.45	176.12
4.12	875.12	37.73	17.75	2.23	12.76	19.92
3.18	73.15	1.98	8.98	1.98	17.75	18.76
.94	963.13	.89	12.78	12.72	198.12	1.75
7.63	91.71	37.69	1.79	1.79	19.96	3.24
1.29	8.76	1.29	.29	12.72	179.12	18.49
3.12	1.29	81.78	.89	179.12	81.76	7.65

LESSON 113.

1. Wheat, weighing 2142 lbs., at \$0.80 per bushel of 60 lbs.
2. Corn, weighing 2506 lbs., at \$0.65 per bushel of 58 lbs.
3. Barley, weighing 3381 lbs. at \$0.75 per bushel of 48 lbs.
4. Millet, weighing 1768 lbs., at \$1 per bushel of 45 lbs.
5. Oats, weighing 2255 lbs., at \$0.35 per bushel of 32 lbs.
6. Buckwheat, weighing 2172 lbs., at \$0.60 per bushel of 48 lbs.
7. Beans, weighing 2761 lbs., at \$1.25 per bushel of 62 lbs.
8. Peas, weighing 2500 lbs., at \$1.40 per bushel of 60 lbs.
9. Hungarian grass seed, weighing 3146lbs., at \$2.50 per bushel of 45 lbs.
10. Red top grass seed, weighing 2059 lbs., at \$0.90 per bushel of 14 lbs.
11. Timothy seed, weighing 2677 lbs., at \$2 per bushel of 44 lbs.
12. Kentucky blue grass seed, weighing 2266 lbs., at \$1.50 per bushel of 14 lbs.
13. Clover seed, weighing 2941 lbs., at \$5.10 per bushel of 45 lbs.
14. Flax seed, weighing 2727 lbs., at \$2.25 per bushel of 56 lbs.
15. Castor beans, weighing 3050 lbs., at \$3 per bushel of 46 lbs.
16. Potatoes, weighing 2599 lbs., at \$0.65 per bushel of 60 lbs.
17. Turnips, weighing 2160 lbs., at \$0.30 per bushel of 56 lbs.
18. Apples, weighing 2701 lbs., at \$0.25 per bushel of 56 lbs.
19. Sweet potatoes, weighing 3349 lbs., at \$1 per bushel of 55 lbs.
20. Onions, weighing 2021 lbs., at \$0.85 per bushel of 57 lbs.

LESSON H-3.

1.	2.	3.	4.	5.	6.
5	21	176	7976	89765	767349
6	72	294	2976	34693	843279
7	33	189	8149	89763	579279
8	89	272	3178	59643	469328
9	76	198	8176	29765	846329
3	12	296	3129	91768	379876
4	32	179	3428	31795	123456
8	19	392	1898	18496	789012
2	14	183	1696	12764	869123
6	32	269	1849	19752	346129
3	17	179	2176	18755	346323
4	21	186	1776	91764	846389
7	17	292	2179	12943	912312
9	32	198	3174	18754	846329
3	17	396	2922	21765	346329
2	16	128	1776	12224	129146
7	35	393	2963	18943	876323
9	17	176	1849	91765	196343
8	34	298	1776	18942	273129
4	16	176	2992	75179	976143
3	18	292	1779	34178	478129
7	25	198	1848	31763	878343
5	19	296	1996	19998	129176
8	16	379	1228	31765	469129
7	34	263	1776	19545	769173
3	26	198	1229	21767	843129
2	15	129	1779	18928	746129
1	19	363	2176	76728	348126
4	81	292	3179	18988	346128
5	76	176	1879	17545	896393
8	12	373	3175	19767	179148
7	19	292	1996	21765	329178
3	76	186	7179	19465	876129
2	18	292	1898	21765	757148
8	21	179	9176	18943	149176
6	81	186	3179	12765	329179
4	76	391	8175	19346	417763
5	19	373	1292	18769	816329
9	36	849	1778	21766	179179
7	18	276	1775	12765	873873
3	34	198	2198	19765	296173
6	19	296	1896	19765	129179
5	16	198	1229	21989	276129

LESSON 112.

1.	2.	3.	4.	5.	6.
\$ 6.00	\$ 5.00	\$ 1.85		\$ 7.00	\$ 4.64
10.00	10.00	18.00		35.00	10.00
7.39	5.60	46.50		35.00	5.00
4.75	6.50	2.50		38.21	8.40
5.00	10.00	53.45		20.49	4.25
16.45	100.00			74.00	45.00
4.71	.90			5.18	12.88
5.00	4.75			7.80	9.45
8.07	.90			80.00	5.00
8.07	100.00			287.50	1.33
3.35	11.95	512.89		3.30	5.00
5.00	10.00	1.50		96.09	2.28
3.00	10.75	1.37		21.00	10.00
5.00	10.00	1.00		50.00	5.00
.82	4.95	152.62		35.52	2.27
10.00	10.00			171.86	2.70
6.50	2.50				10.00
5.10	1.40				.92
15.00	17.25				1.54
5.00	10.00				
.85					
8.00					
1.75					
10.00					

7.	8.	9.	10.
\$ 7.55	\$ 3.15	\$ 1.50	\$10.00
30.00	3.50	1.50	2.16
10.00	45.00	4.37	10.00
10.00	17.50	3.38	2.40
19.00	1.00	1.02	.55
16.10	10.00	2.79	3.00
7.50	6.00	109.98	45.00
10.00	98.76	20.65	4.55
18.65	3.19	6.20	3.92
10.00	13.00	3.36	5.00
16.50	38.40	6.00	12.88
10.00	6.00	10.00	5.00
20.00	3.08	23.75	8.70
	45.00	1.46	2.16
	5.00	4.32	10.00
	7.50	10.00	1.90
	10.00	.72	76.00
	1.54	8.50	10.00
	5.00	1.47	2.16
	5.00	7.00	10.00
		4.80	1.44
		5.50	.25
			1.92
			1.68

LESSON I-1.

1.	2.	3.	4.	5.	6.	7.	8.
79	179	1249	12345	1.79	12.49	171.12	1.79
63	216	1683	18746	2.73	18.69	12.86	12.75
81	415	1754	13753	1.83	17.15	1.91	18.91
26	961	1973	12346	7.53	81.79	5.76	1.79
19	363	1293	61763	1.75	17.79	12.86	15.12
45	412	1234	12943	2.45	18.79	5.92	1.75
12	815	5678	18753	1.69	81.79	17.16	175.12
63	912	9013	19751	3.79	31.29	12.76	.91
18	545	3014	12843	1.79	71.17	1.98	51.76
12	296	9106	13763	2.76	18.79	15.94	1.75
76	127	8112	12953	5.12	21.63	18.76	18.92
15	158	9116	81753	9.43	18.79	19.76	17.76
13	179	3112	12863	8.76	12.75	1.91	15.45
18	213	1234	91761	1.29	57.12	2.92	175.15
16	716	1345	12753	1.76	12.92	18.43	12.12
12	512	1246	19891	2.92	81.76	1.79	18.79
76	916	1312	12753	8.94	12.92	12.76	12.79
19	312	1916	18763	5.75	81.76		
17	415	1512	19494	8.76	17.76		
21	813	1915	12763	1.12	18.89		
16		1875	18463	1.79	19.12		
15				1.83			
13							

9.	10.	11.	12.	13.	14.	15.
29	176	75	12.92	11.96	1.12	117.15
63	129	175	75.12	81.76	2.16	292.18
173	176	91	15.64	1.79	3.15	176.15
129	79	176	7.93	.15	2.92	296.17
115	154	95	81.75	1.75	5.64	198.12
116	86	129	75.16	81.76	1.98	396.18
117	5	59	18.98	1.75	5.65	292.15
28	12	176	12.93	.12	8.92	373.15
17	176	81	15.75	8.95	3.65	292.19
793	12	376	18.76	12.96	2.92	176.12
12	546	179	12.93	1.79	7.56	891.76
343	179	29	15.63	76.15	1.75	373.46
87	19	176	12.23	8.79	2.75	176.84
179	2	159	18.75	12.92	3.46	292.16
158	763	12	19.76	8.96	1.76	175.18
12	15	976	13.63	12.75	3.25	393.12
176	18	189	12.96	1.91	8.76	376.58
54	15	156	91.76	81.91	1.92	175.19
175	91	75	81.75	5.96	1.79	393.18
96	76	219	18.75	12.76	3.43	175.18
178	15	156	19.73	1.91	1.75	292.12
12	178	179	18.75	18.76	3.73	175.18
175	79	216	19.76	9.76	1.57	343.16
19	176	212	12.93	15.75	3.76	186.12
	195				2.92	
					1.79	
					1.68	
					3.43	

LESSON 111.

Find amt. of following bill without clearing and using fixed dec. point. Ans. \$ & c only, 5 mills or more counting another cent.

725	Yards	@	.75
12.5	"	@	.29
179	"	@	1.00
624.5	"	@	.08
12.7	"	@	.91
1.8	"	@	.69
275	"	@	.061/4
17.8	"	@	.081/2
12.9	"	@	.02-1/3
18.7	"	@	.067/8
175	"	@	.05
912	"	@	.08
175	"	@	.09
129	"	@	.91
75	"	@	.75
13/4	"	@	.013/4

LESSON J-1.

Cross foot and prove.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
79	179	1146	7	76	179	7176	176	79	176
86	276	2176	5	12	378	8198	129	86	293
23	184	1849	2	39	129	3173	179	19	173
79	179	7932	1	12	793	1973	891	91	896
28	349	8463	9	76	863	1898	763	76	176
14	179	1249	8	18	765	1899	179	89	878
15	891	8179	6	15	196	1900	323	79	179
16	734	2168	4	19	381	1801	893	83	391
17	176	1848	3	39	848	7943	176	79	796
18	891	1969	2	48	179	1848	393	46	186
23	376	3176	1	76	393	9176	876	31	323
91	928	8148	4	12	179	8178	129	76	198
26	179	9176	5	79	391	1999	391	19	187
17	324	8176	8	81	498	1878	896	83	191
15	176	8683	9	76	878	3196	176	76	393
38	843	1981	7	51	321	1779	393	83	176
19	175	3176	5	39	916	9181	189	79	292
29	291	8179	8	86	717	7171	391	91	178
18	791	3183	5	79	321	3131	976	73	393
37	326	7963	9	23	976	8963	873	84	176
15	891	7164	5	18	326	3176	129	46	393
34	793	2163	4	76	179	9179	373	39	898
34	846	8198	3	39	323	3343	891	76	178
18	179	1379	7	78	981	1981	777	12	391
19	296	2193	8	19	376	1765	175	18	179
18	175	8193	3	36	198	1891	976	19	898
39	292	4573	9	79	393	7171	129	34	179
76	186	1993	7	84	176	8176	796	19	176
86	393	1898	8	12	373	2196	373	76	898
79	123	3193	5	76	129	3179	474	12	179

LESSON 110.

1.	1. (Cont'd)	1. (Cont'd)	2.	4.
\$9,115.48	\$ 34.07	\$ 43.10	\$18.25	\$0.07
1.20	25.67	42.81	7.72	.25
18.25	85.63	43.02	3.75	.38
18.38	313.22	18.25	12.75	.12
7.72	93.96	159.50	11.18	.90
3.78	8.76	262.92	10.20	.63
11.67	8.76	245.28	3.41	.11
12.87	83.27	121.28	26.25	.12
16.14	108.48	23.85	70.30	.20
4.75	78.25	103.88	41.11	.21
4.75	3.84	131.00	36.50	.17
10.20	3.85	113.95	122.50	.11
10.26	14.80	161.87	20.74	.05
3.41	9.12	123.32	25.50	.45
3.43	9.19	39.68	85.63	.31
6.00	12.25	61.25	14.70	.26
6.00	18.37	61.70	9.13	.13
9.75	18.25	123.32	18.25	.09
11.25	36.50	24.25	42.81	.08
26.43	61.05	41.01	12.75	.07
60.63	303.60	122.50	12.50	.14
85.98	216.08	107.16	122.50	.13
9.13	122.50	42.81	39.42	.27
272.68	18.25	7.13	61.25	1.14
70.76	26.25	7.16	122.50	1.07
41.38	18.25	19.13	7.12	.15
36.76	257.13	19.25	19.12	
7.50	265.04	36.50	2.42	
122.50	26.25	22.08		
267.13	34.00	.01	3.	\$ 7.32
387.01	97.55	122.50		11.04
149.57	16.25	26.50		12.13
9.12	220.97			50.90
245.87	638.12			49.00
20.91	191.56			
20.74	43.10			
(Cont'd)	(Cont'd)			

LESSON J-2.

Cross foot and prove.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
76	79	76	19	76	77	75	18	15	75	19	21
89	83	18	79	12	83	14	91	29	85	81	76
91	84	31	39	19	19	15	76	15	19	79	19
78	96	86	76	79	73	73	12	34	73	81	75
36	34	73	19	76	75	81	34	16	17	75	19
83	15	74	75	18	19	73	19	21	15	19	75
91	17	19	18	48	79	19	75	49	75	81	81
12	18	76	75	19	83	76	12	54	17	71	73
91	91	18	19	76	29	19	43	18	39	84	12
76	73	75	79	12	76	73	16	26	75	19	12
12	18	12	39	75	91	15	12	15	17	75	75
84	76	83	18	19	73	45	13	21	15	75	19
76	23	76	76	75	18	75	73	75	75	18	29
29	19	19	18	39	75	15	19	16	77	93	76
91	76	21	76	12	19	95	71	21	12	76	18
76	37	76	15	76	75	43	29	75	39	75	25
34	73	16	18	19	83	75	12	34	75	19	18
18	73	73	75	79	19	75	21	15	75	75	19
17	19	39	19	12	73	15	32	91	17	18	76
21	76	76	76	73	19	39	23	75	71	91	12
76	18	19	75	18	71	75	45	15	85	76	96
39	73	76	76	15	37	34	49	75	19	17	12
45	74	19	15	12	15	55	12	18	75	81	76
54	18	79	75	39	42	15	16	21	77	75	18
96	19	86	12	76	32	95	84	75	18	99	19
69	76	34	76	15	19	75	17	76	79	75	76
76	19	12	18	18	76	19	15	19	76	77	54
37	74	92	76	19	43	75	91	75	19	19	75
73	15	86	19	79	27	18	76	77	81	75	13
12	81	77	76	76	19	75	81	19	75	19	29
76	75	37	18	19	75	24	72	75	77	75	75
19	92	38	91	73	16	19	42	19	15	19	76
18	76	19	12	75	81	75	32	75	19	12	77
17	15	76	76	15	12	19	15	21	71	13	73

LESSON 109.

Find the cost of—

- 1—1,650 Ft. Pine Lumber, at \$15.00 per M.
- 2— 611 Ft. Oak Lumber at \$24.00 per M.
- 3—21,168 Ft. Hemlock Lumber, at \$7.50 per M.
- 4—9,475 Ft. Elm Lumber, at \$13.00 per M.
- 5—2,120 Ft. Ash Lumber, at \$25.00 per M.
- 6—2,768 Ft Maple Lumber at \$14.00 per M.
- 7—1,100 Ft. Chestnut Lumber, at \$18.00 per M.
- 8—4,560 Ft. Oak Lumber, at \$22.00 per M.
- 9—11,265 Ft. Spruce Lumber, at \$12.50 per M.
- 10—6,625 Shingles, at \$5.25 per M.

Solve above from right to left using all figures.

Set dec. point 5 places to left and do not move point during the above list.

LESSON J-3.

Cross foot and prove.

1.	2.	3.	4.	5.	6.	7.	8.	9.
176	292	732	762	179	767	276	767	767
292	129	175	267	272	162	179	292	323
179	373	753	891	175	962	292	197	192
373	892	176	793	292	189	175	273	276
753	176	293	192	763	289	292	323	949
129	329	179	373	898	176	179	176	292
753	878	373	129	175	292	393	148	375
872	179	191	763	216	176	183	292	176
192	373	292	175	917	289	192	373	898
292	898	176	272	815	179	292	175	176
176	173	323	393	292	216	175	212	215
373	189	189	777	179	381	273	914	815
192	293	763	157	272	476	192	892	912
292	173	893	878	179	292	363	170	292
175	129	154	129	222	179	175	175	767
575	793	854	763	333	373	767	217	175
191	176	175	767	444	975	192	176	198
793	292	575	158	555	898	297	373	212
393	176	129	767	666	167	157	129	715
173	373	757	192	777	898	392	717	212
129	892	157	968	888	767	273	317	716
921	192	292	177	999	292	898	917	343
374	292	175	183	111	181	179	312	195
123	198	292	192	171	767	292	817	198
345	186	175	292	172	292	186	517	373
456	292	192	767	173	175	373	717	176
576	129	763	967	174	292	195	297	298
567	973	192	878	175	198	198	198	179
789	873	292	197	292	594	393	216	257
901	129	175	272	179	373	198	393	176
803	763	189	179	272	198	298	198	213
761	129	272	776	192	292	197	275	815
292	848	175	157	176	186	217	117	916
763	179	763	272	272	292	317	215	212
192	976	192	192	189	176	417	198	715

LESSON 108.

....

1.	2.	3.	5.
\$338.84	\$ 51.50	\$ 12.00	\$1.98
338.84	24.00	233.10	1.75
35.04	19.00	85.16	1.46
45.00	8.91	239.32	1.75
60.00	65.96	117.71	1.98
5.44	318.32	25.00	1.29
227.61	45.00	15.00	1.76
227.61	20.00	20.00	1.29
32.24	20.00	36.37	1.73
6.50	1.50	137.53	1.25
5.60	6.50	25.00	1.76
50.00	20.00	25.00	1.25
33.81	30.00	25.00	1.19
25.95	8.94	6.10	1.29
83.73	21.00		1.17
83.74	34.14		1.18
20.50	50.00		1.49
6.30	36.84		1.98
206.92	17.74	4.	1.76
28.17	.50	\$0.75	1.29
6.10	25.71	.25	1.76
6.25	25.72	.76	1.25
40.00	30.01	.83	1.28
15.00	2.50	.76	1.73
46.50	.90	.29	1.25
46.50	27.75	.53	1.26
11.00	32.21	.05	1.73
24.00	17.50	.25	1.15
7.40	6.15	.79	1.17
15.00	10.60	.83	
24.12	45.00	.26	
21.00	9.50	.75	
3.00	141.67		
15.00	30.00		
	30.00		
	7.65		
	19.00		

LESSON J-4.

Cross foot and prove.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1.98	18.92	.79	2.92	7.92	1.76	.75	1.75	19.12	1.79
3.76	17.92	.12	1.76	3.46	3.29	.84	2.92	18.14	3.76
5.92	18.92	.92	8.79	1.79	8.64	.12	1.76	15.12	1.92
7.15	56.12	.76	5.92	3.73	3.23	.76	3.23	17.15	1.76
8.12	84.17	.89	1.76	1.79	1.96	.15	1.98	31.12	3.92
2.16	39.18	.93	3.73	8.92	3.79	.91	3.26	17.54	1.79
.56	1.79	.79	1.98	2.92	1.78	.75	1.98	18.92	3.21
.98	8.92	.12	3.76	1.79	3.98	.83	3.93	17.75	8.92
1.58	5.96	.96	1.76	3.23	1.49	.92	1.76	18.92	1.79
.75	1.98	.79	8.98	1.76	3.23	.75	2.98	17.76	3.21
.85	5.69	.83	1.76	3.92	1.79	.15	1.79	19.92	1.76
.79	12.79	.92	5.95	1.98	2.98	.91	3.12	18.41	3.81
3.48	1.69	.75	1.78	3.92	1.76	.76	1.96	19.91	1.29
1.76	8.43	.96	1.78	1.98	3.23	.83	8.15	17.76	3.92
3.92	8.92	.75	2.92	3.29	1.98	.75	3.23	31.76	1.76
1.73	7.96	.96	2.92	1.76	9.81	.19	1.96	91.79	1.79
8.98	15.95	.12	2.92	2.11	3.33	.83	3.17	18.43	3.23
.79	12.95	.92	2.92	3.73	2.22	.23	8.12	19.21	8.92
.05	3.79	.71	1.00	8.98	1.75	.42	9.14	13.23	1.79
.95	9.15	.82	.50	1.79	3.12	.75	3.15	19.62	3.23
8.76	12.75	.93	.90	3.23	9.15	.24	9.17	13.43	8.92
3.24	1.79	.12	18.90	1.98	3.14	.91	3.23	91.76	7.77
1.98	3.75	.21	15.60	3.72	1.76	.76	1.76	18.29	8.76
.75	1.98	.93	1.80	1.79	3.12	.83	3.92	17.79	3.21
2.75	18.93	.86	14.50	2.69	9.81	.92	1.98	18.78	9.76
1.75	.79	.71	7.50	1.78	3.23	.76	3.23	91.76	3.22
.98	.83	.83	17.81	3.81	8.96	.91	1.98	13.75	1.29
.99	75.12	.93	18.91	2.99	1.76	.76	3.12	19.95	3.79
7.76	1.79	.54	1.75	1.76	3.21	.23	1.99	19.96	1.28
.56	5.56	.72	5.55	3.83	1.79	.91	3.98	31.71	3.73
.79	8.98	.86	1.11	2.99	8.92	.73	1.98	31.72	8.79
.91	1.79	.92	5.55	1.76	1.75	.82	2.99	19.96	8.78
8.91	12.92	.75	1.75	3.83	3.15	.92	1.79	18.79	1.79
3.92	17.93	.92	8.91	2.92	9.16	.11	3.23	12.92	2.22

LESSON 107.

Find the cost of—

- 1—1753 lb. of salt at \$1.25 per C.
- 2—8425 lb. of scrap iron, at \$1.10 per C.
- 3—2156 lb. of fence wire, at \$3.25 per C.
- 4—378 fence posts, at \$7.50 per C.
- 5—3295 lb. of guano, at \$4.50 per C.
- 6—905 lb. of lead at \$3.50 per C.
- 7—1125 lb. of castings at \$2.25 per C.
- 8—1620 handles, at \$5.50 per C.
- 9—509 lb. of Beef, at \$12.50 per C.
- 10—23,765 lb. of nails, at 15c per C.

Note—Solve above from right to left using dec. point always in same place, viz: 4 places to the left. Set point before commencing work and do not move point during the 10 problems. Do not drop any ciphers. Use all figures.

LESSON J-5.

Cross Foot and Prove.

7.76	2.98	9.15	5.92	7.76	1.79	2.92	1.76	2.92	1.76	2.92	1.79
8.92	1.98	9.12	7.96	1.77	3.76	1.76	1.76	3.12	2.75	3.12	2.22
3.54	3.73	3.12	1.79	3.78	2.92	3.89	3.89	8.76	1.25	8.76	1.76
1.98	2.98	9.15	3.34	3.29	3.15	1.76	1.76	3.15	1.98	3.15	3.12
7.54	1.58	7.15	8.98	1.79	2.16	3.12	3.12	9.79	2.76	9.79	8.76
7.76	3.16	2.92	3.92	3.29	1.78	9.18	9.18	2.98	3.15	2.98	3.15
3.29	2.19	5.95	5.96	5.45	3.73	7.15	7.15	1.96	8.98	1.96	2.96
7.98	3.15	1.78	3.75	1.78	5.12	9.12	9.12	3.12	5.95	3.12	3.15
3.93	2.92	3.12	1.92	3.78	8.98	3.87	3.87	8.98	1.79	8.98	1.89
8.76	4.74	2.92	3.96	5.78	7.15	1.76	1.76	5.76	3.12	5.76	7.92
3.73	1.98	5.12	1.75	5.12	5.15	3.75	3.75	8.98	1.98	8.98	1.25
2.92	3.12	2.98	3.12	8.16	9.16	2.98	2.98	7.12	3.85	7.12	2.99
1.98	9.12	5.92	2.12	5.15	3.15	1.75	1.75	9.15	2.16	9.15	5.16
8.98	8.15	2.16	3.16	7.16	9.12	3.92	3.92	3.18	3.15	3.18	2.99
1.76	9.12	3.15	5.95	5.12	1.78	1.76	1.76	4.95	2.98	4.95	1.79
3.12	7.15	9.12	8.96	9.16	3.12	3.15	3.15	1.29	1.76	1.29	3.12
1.98	9.16	3.75	3.12	3.73	9.15	2.96	2.96	7.16	3.12	7.16	8.19
3.43	7.12	2.15	7.15	7.12	7.76	1.59	1.59	5.19	8.98	5.19	7.15
5.63	9.15	8.92	3.92	8.98	2.98	3.92	3.92	8.78	1.75	8.78	2.29
8.68	8.98	3.65	1.96	3.98	1.78	1.96	1.96	3.12	3.12	3.12	1.29
1.98	1.76	9.26	3.17	1.76	2.92	5.75	5.75	2.98	2.98	2.98	3.13
3.98	3.98	3.12	5.12	2.22	1.98	1.89	1.89	1.76	1.76	1.76	2.92
5.92	1.78	2.15	2.92	1.98	3.78	3.76	3.76	3.12	8.98	3.12	1.76
1.98	3.12	8.16	1.79	3.12	1.78	2.92	2.92	9.79	1.79	9.79	3.15
3.98	9.17	3.92	3.15	5.76	3.78	1.98	1.98	1.25	3.12	1.25	2.29
1.76	9.15	2.12	7.77	3.12	1.79	3.12	3.12	8.19	8.98	8.19	1.78
5.98	2.92	3.15	1.78	9.15	2.76	8.96	8.96	7.15	1.76	7.15	3.15
7.76	1.78	2.16	3.15	9.12	3.78	1.75	1.75	2.98	3.12	2.98	2.19
5.56	9.10	3.92	8.92	3.16	1.75	2.92	2.92	1.99	8.98	1.99	1.76
3.93	5.12	9.12	1.76	2.15	2.69	1.98	1.98	7.99	1.79	7.99	3.79
1.75	8.98	3.63	3.15	9.18	1.78	3.15	3.15	8.92	3.12	8.92	1.84
3.76	5.98	8.92	9.14	3.12	2.87	2.17	2.17	1.76	1.79	1.76	2.22
4.75	7.75	5.92	8.92	1.96	1.76	1.98	1.98	9.16	3.15	9.16	1.79
1.98	1.98	7.97	7.76	5.95	3.92	3.98	3.98	3.15	2.19	3.15	2.65
3.98	4.78	1.76	3.43	7.93	1.75	1.76	1.76	9.18	8.16	9.18	1.76

LESSON 106.

1.	2.	3.	4.	5.
\$ 50.00	\$ 5.00	\$ 1.54	\$ 2.45	\$75.00
25.00	6.10	5.00	1.12	1.25
45.83	5.95	6.50	13.23	18.96
6.10	1.84	1.50	3.00	5.00
10.00	4.10	10.00	5.00	4.00
3.17	.98	10.00	5.00	1.25
1.25	2.40	5.75	4.50	75.00
5.54	2.30	5.95	1.50	18.96
9.50	10.00	10.00	1.50	1.75
.32	10.00	6.48	93.07	18.25
.66	2.30	7.00	10.00	16.25
1.05	2.30	3.90	7.50	1.75
10.25	2.30	10.00	1.50	3.25
5.00	9.00	5.00	1.50	8.25
23.24	10.00	145.00	1.50	17.26
22.40	5.00	10.00	1.50	18.95
3.27	7.50	5.00	15.00	
5.00	.98	8.00	26.60	
8.00	2.20	2.00	1.98	
15.00	10.00	1.47	10.00	
19.46	15.00	10.00	1.50	
3.73	2.09	2.00	6.69	
10.00		2.00	16.50	
10.00		2.00	2.64	
42.00		2.00	8.50	
28.38		1.68	64.00	
5.50		306.00	1.50	
3.91		.35	10.00	
7.00		5.00	45.00	
7.05		2.00	3.94	
5.95		2.00	35.00	
2.98		2.00	10.00	
33.28		10.00	1.91	
7.00		5.00	1.50	
37.50		10.00	3.15	
9.00		2.00	5.00	
45.00		1.98	4.00	
10.00		1.79	3.36	
3.05		1.75	5.00	
9.50		30.18	30.75	
30.00		2.00		
5.98		150.75		
4.60		1.26		
141.67		10.00		
13.65		1.47		
49.54				
5.00				
1.33				

LESSON 1.

1.

\$79,645.12
 96,543.16
 17,689.24
 89,724.97
 23,567.95
 44,766.97
 33,452.09
 44,775.99
 88,443.79
 25,347.85
 66,773.99
 44,623.88
 44,652.48
 43,678.93
 46,543.27
 77,445.27
 47,521.15
 17,643.26
 77,534.28
 55,749.23
 17,878.11
 66,945.51
 26,435.21
 99,875.23
 44,576.42
 33,333.77
 77,777.99
 90,897.67
 56,453.43
 34,231.45
 23,456.78
 98,765.43
 24,689.75
 97,483.27
 44,886.27
 33,577.28
 98,756.46
 23,456.67
 24,356.47
 45,789.46
 24,679.23
 37,542.11
 87,532.25
 46,773.99
 24,576.44
 22,998.02
 66,772.88
 44,444.33
 99,999.22
 66,667.77
 44,332.44
 33,556.78
 37,542.55
 36,784.22
 98,756.43
 27,365.45
 55,443.23
 77,885.29
 77,221.19
 21,314.15
 51,617.81
 91,104.21
 29,384.76

2.

\$89,645.15
 25,341.16
 98,671.25
 46,564.56
 11,229.46
 12,765.46
 27,481.24
 25,346.86
 99,988.77
 44,477.75
 11,227.55
 44,772.33
 47,654.34
 27,381.48
 37,456.27
 47,474.48
 39,393.49
 37,645.55
 27,371.47
 48,671.49
 29,834.57
 46,565.46
 27,384.57
 27,384.47
 29,384.56
 29,451.29
 38,271.59
 33,477.67
 11,554.90
 90,919.29
 54,312.69
 12,345.67
 76,543.21
 98,765.43
 34,765.21
 17,654.32
 98,081.20
 30,402.50
 27,543.21
 98,725.51
 27,374.77
 66,774.26
 27,345.54
 27,374.67
 84,848.84
 37,475.55
 27,374.56
 90,109.01
 20,304.01
 50,403.20
 51,413.21
 61,514.21
 68,584.20
 41,312.68
 29,394.58
 28,384.57
 28,384.57
 27,564.54
 54,545.35
 26,364.54
 27,314.56
 27,374.57
 27,451.11

3.

\$96,345.12
 12,754.12
 12,121.51
 65,432.11
 61,417.26
 23,456.62
 64,534.44
 24,354.46
 66,774.49
 99,922.11
 29,387.77
 22,222.66
 33,333.77
 44,444.55
 66,666.77
 88,888.99
 10,901.10
 20,304.14
 20,304.15
 29,394.98
 28,456.67
 41,516.17
 29,873.56
 27,835.57
 23,476.75
 47,689.01
 20,304.40
 30,205.50
 66,666.66
 88,888.88
 99,999.99
 10,010.10
 20,305.60
 41,516.21
 71,819.91
 21,678.88
 88,665.44
 33,221.11
 76,767.76
 56,756.77
 23,456.67
 90,807.06
 50,412.67
 41,378.57
 29,786.66
 61,413.26
 46,578.76
 44,444.44
 35,453.57
 27,374.56
 29,187.65
 11,991.09
 41,516.51
 21,316.66
 56,757.56
 44,477.88
 90,780.99
 27,818.46
 44,557.87
 28,384.78
 79,787.97
 49,596.29
 49,081.28

LESSON 105.

Find the cost of—

1. 200 lb. @ $37\frac{1}{2}c$
2. 700 lb. @ $51\frac{1}{4}c$
3. 160 lb. @ $14\frac{3}{4}c$
4. 250 lb. @ $21-2/5c$
5. 1000 lb. @ $\$1.12\frac{1}{2}$
6. 750 lb. @ $81-3/5c$
7. 1250 lb. @ $\$2.62\frac{1}{2}$
8. 400 lb. @ $95\frac{1}{2}c$
9. 250 lb. @ $95\frac{3}{8}c$
10. 75 lb. @ $60\frac{3}{4}c$
11. 125 lb. @ $27-1/5c$
12. 1100 lb. @ $\$1.42\frac{1}{2}$
13. 500 lb. @ $37\frac{1}{2}c$
14. 1500 lb. @ $18\frac{3}{4}c$
15. 300 lb. @ $41\frac{3}{4}c$
16. 3000 lb. @ $\$12-1/3$
17. 2500 lb. @ $\$1.10$
18. 25 lb. @ $\$1.85$
19. 150 lb. @ $33\frac{1}{2}c$
20. 75 lb. @ $\$1.15$

LESSON 2.

1.	12	71	56	49	28	38	21	12	67	25	67	12.
	71	72	19	49	24	28	31	69	27	26	45	
	82	83	41	29	39	39	47	21	38	37	78	
	73	93	67	39	48	37	49	48	29	78	67	
	42	56	89	49	59	48	39	38	37	47	88	
	84	74	26	59	68	20	43	49	46	26	67	
	90	92	48	67	29	38	52	48	56	25	45	
	54	13	58	12	30	12	63	58	21	25	89	
	62	17	41	15	49	16	73	29	18	37	35	
	12	18	12	17	49	17	82	30	19	48	67	
	13	91	13	14	20	33	23	41	41	26	89	
	14	19	14	13	38	44	45	58	51	38	23	
	15	40	15	49	46	59	67	28	90	49	34	
	61	40	16	12	45	24	59	36	38	58	45	
	71	44	17	39	12	38	38	48	27	37	56	
	83	66	18	14	13	49	56	51	39	26	18	
	93	77	19	16	13	50	98	69	47	35	78	
	72	88	10	14	41	28	89	27	17	49	78	
	74	99	11	15	51	31	91	38	14	27	78	
	84	10	12	16	37	13	38	49	13	36	90	
	91	11	21	17	46	55	94	48	12	36	30	
	82	12	31	12	50	66	73	29	98	47	40	
	73	14	41	39	23	77	63	21	86	57	50	
	45	19	51	28	35	22	82	39	84	20	70	
	56	17	61	28	46	28	74	38	93	30	80	
	78	16	71	49	38	39	81	40	83	40	90	
	89	18	81	46	49	40	93	59	84	44	89	
	46	34	91	21	13	44	82	28	29	66	46	
	45	46	34	31	12	59	38	39	37	77	38	
	32	57	45	51	15	55	40	41	41	99	78	
	43	35	20	90	60	33	62	57	51	88	29	
	13	78	30	58	15	66	48	28	90	11	49	
	86	90	40	39	48	89	41	37	98	22	47	
	87	23	50	49	56	38	72	36	89	55	38	
	94	34	60	56	14	46	38	36	76	44	21	
	87	45	70	67	35	57	49	31	67	66	37	
	78	67	80	20	45	39	51	36	45	77	44	
	67	67	70	38	56	40	82	45	54	88	55	
	89	78	56	49	37	51	39	36	72	44	66	
	56	45	79	47	37	61	41	29	27	55	77	
	47	89	29	56	49	71	73	37	37	66	88	
	39	23	38	11	36	29	58	36	48	88	99	
	38	38	48	12	50	35	47	46	84	99	55	
	—	—	69	48	44	47	—	31	84	77	45	

LESSON 104.

1.	2.	3.	4.	5.
\$99.62	7,961	\$796.12	\$2,757.12	\$0.75
1.75	8,954	846.13	8,963.15	1.25
89.73	7,854	79.16	8,976.15	.89
1.29	1,262	276.15	2,976.12	1.96
79.43	8,971	87.12	8,975.17	8.75
86.72	1,246	375.12	8,776.15	3.79
1.79	7,963	76.13	2,976.12	1.29
15.79	8,452	175.18	8,756.15	.86
5.28	7,912	12.75	2,976.15	5.75
1.29	1,775	176.12	3,975.12	1.25
17.63	1,876	17.75	8,975.15	1.29
7.64	1,943	89.63	3,756.15	.89
12.61	1,728	176.12	1,876.19	.76
5.75	1,263	76.12	2,974.17	3.76
1.71	1,459	129.86	8,976.15	1.28
18.29	1,786	76.12	3,636.14	5.65
16.15	1,729	89.76	2,735.17	1.25
1.79	1,826	176.18	3,436.13	7.56
12.72	1,829	79.12	3,736.15	8.91
1.79	1,225	89.12	1,875.19	1.76
.89	1,111	765.13	3,736.15	3.98
.79	1,241	18.76	3,465.12	1.76
12.89	1,375	775.12	8,946.13	1.76
1.76	1,976	89.17	7,575.15	3.15
1.79	1,876	12.63	3,635.14	.75
12.21	1,275	176.13	8,988.15	.49
1.79	1,826	79.15	3,616.16	.56
12.74	1,826	275.15		7.76
1.76	1,975	175.12		1.75
18.79	1,775	376.15		
1.75				
12.69				
8.43				

LESSON 3.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
\$1.25	\$6.78	\$6.78	\$8.36	\$7.39	\$3.40	\$5.90	\$4.39	\$7.21	\$9.60
3.45	3.56	9.07	2.48	7.29	6.90	1.40	1.25	3.49	4.30
5.61	4.68	4.67	8.37	5.38	7.42	4.10	3.75	5.50	5.50
3.56	7.09	8.37	9.47	8.37	3.61	6.09	6.48	7.42	4.39
4.56	2.76	7.40	8.49	5.20	6.90	6.20	5.95	3.49	3.24
5.78	3.48	9.93	8.35	5.38	2.84	9.30	9.82	5.50	9.83
3.56	8.91	6.48	2.48	6.49	6.94	7.93	1.98	4.28	6.75
6.78	3.56	7.48	6.39	7.37	7.77	4.04	4.99	9.90	5.62
2.44	3.69	7.23	5.28	6.29	5.40	5.50	2.90	7.49	5.72
3.44	2.34	8.47	8.49	6.37	2.54	6.72	7.50	5.25	6.72
5.66	6.79	9.47	6.36	9.12	5.50	7.77	5.00	7.50	9.43
6.77	9.04	9.32	6.39	1.45	9.40	3.24	4.32	6.39	2.16
2.35	8.92	2.34	9.29	5.37	3.75	7.49	6.70	3.30	1.15
6.78	5.67	9.84	4.37	1.56	4.80	4.85	8.88	9.80	3.41
6.57	9.83	6.47	6.49	1.78	6.95	8.93	9.00	2.10	4.19
4.56	8.93	6.28	6.39	7.18	2.84	7.38	2.43	4.30	5.51
9.00	2.50	5.38	5.27	4.19	9.90	6.29	1.51	7.19	9.12
8.00	2.58	5.20	6.37	7.19	7.98	6.39	7.42	4.20	4.10
5.01	6.78	8.29	8.37	7.14	6.78	9.36	6.90	3.00	5.19
4.03	4.68	4.20	5.29	4.19	5.78	8.47	4.33	6.66	2.13
5.55	9.76	9.38	9.36	7.19	4.57	1.98	6.99	5.30	8.43
2.33	5.43	9.45	5.38	3.12	3.68	2.98	6.10	6.50	7.21
4.66	7.94	6.27	6.29	4.15	3.58	6.68	4.50	7.32	6.84
5.78	6.83	5.38	5.27	1.56	2.99	5.78	2.73	6.60	3.27
8.56	5.90	6.39	9.34	6.17	4.50	4.32	5.90	4.39	9.25
6.45	5.78	7.20	5.38	3.15	6.83	9.35	7.84	5.50	7.50
3.21	3.20	7.39	6.23	1.56	9.50	4.77	9.61	7.20	6.82
9.54	6.49	7.34	4.98	6.71	3.55	5.89	7.89	3.40	3.24
3.21	8.93	6.39	4.38	6.67	6.82	5.66	5.84	5.92	7.29
3.45	5.79	2.68	6.38	3.23	7.00	7.43	3.99	9.15	6.92
6.54	2.45	8.39	6.20	3.23	7.30	8.00	2.00	6.43	7.20
7.42	5.90	4.56	5.39	4.23	8.40	9.25	4.78	7.70	1.24
9.82	3.89	7.39	6.28	5.25	5.20	7.50	3.24	3.40	5.92
5.94	7.50	8.20	6.38	5.28	6.83	6.75	5.78	9.81	6.27
7.59	4.38	8.37	9.34	8.45	7.00	8.77	8.39	3.41	5.92
8.90	8.49	5.29	6.37	9.24	5.93	5.39	6.24	7.62	6.29
6.30	3.60	8.37	5.38	5.27	8.39	6.20	6.31	5.29	1.25
6.83	7.39	9.48	5.38	7.27	8.49	8.35	5.50	4.17	2.50
5.70	4.68	3.47	8.37	8.88	5.83	6.29	3.81	3.33	3.71
3.21	9.58	5.48	4.59	9.99	6.88	4.13	5.50	9.00	6.89
5.67	3.59	7.27	5.38	1.11	5.99	7.17	4.28	2.30	5.27
3.46	7.98	8.38	8.47	2.22	5.33	1.11	6.71	7.94	4.50
5.87	4.59	9.37	9.47	3.33	6.82	1.39	9.99	6.40	7.92
5.38	3.07	5.48	3.26	4.44	7.30	9.30	1.25	7.30	9.90
8.46	6.95	3.68	6.38	5.55	6.60	8.17	3.41	3.70	5.20
2.50	7.98	2.78	9.47	9.45	4.95	7.40	2.89	9.40	4.92
8.92									

LESSON 103.

1.	2.	3.	4.	5.
32	3,417	8,481	23,547	298,365
71	2,140	2,345	16,938	312,473
25	439	4,678	68,231	217,875
48	7,164	3,444	61,847	111,290
90	1,538	7,557	15,506	389,453
12	5,046	3,452	42,903	126,287
63	6,116	2,534	63,280	168,500
32	8,735	4,567	11,349	212,889
71	971	5,775	52,468	345,983
25	4,880	7,506	30,209	276,313
48	1,263	6,073	15,473	198,891
90	9,270	2,409	2,648	347,789
12	192			
32	634			

63
71
25
48
90
12
63

6.	7.	8.	9.	10.
176	12	5	\$ 1.91	\$7,985.12
298	42	4	1.92	6,435.12
175	63	8	12.65	765.14
246	89	7	.79	891.17
179	21	5	17.73	5,631.12
276	75	4	1.75	1.79
125	32	3	.28	726.78
175	12	8	15.73	1,541.15
296	24	7	1.29	34.19
176	45	5	.15	176.12
328	56	2	15.85	12.92
496	67	0	1.79	176.18
175	78	5	1.78	176.19
129	89	3	1.99	
176	10	8	3.98	
192	11	9	15.46	
176	15	9		
	16	4		
		6		
		5		

LESSON 4.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
\$178.19	\$678.89	\$889.69	\$749.94	\$780.54	\$899.36	\$455.62	\$888.87	\$66.01	\$1.88
679.10	234.67	245.67	234.67	238.09	799.37	269.94	244.67	66.02	5.90
458.08	88.77	345.67	876.09	679.97	233.57	233.56	238.99	66.03	5.88
248.01	248.56	899.01	348.75	568.98	244.67	233.56	348.55	66.05	6.88
521.11	1.67	34.67	349.98	98.96	788.49	677.89	678.98	77.56	5.00
527.39	68.99	236.67	456.87	457.98	244.67	456.00	245.87	88.65	7.88
625.98	246.78	345.67	298.45	678.24	288.99	788.99	394.04	88.90	4.99
638.89	6.78	467.89	765.09	652.39	277.99	666.66	987.56	34.56	5.66
728.11	55.89	47.58	238.98	873.07	999.99	888.55	247.84	66.75	4.88
45.89	234.56	1.89	457.98	735.98	532.47	348.56	348.98	99.34	6.88
168.28	779.90	245.69	348.76	459.95	274.98	678.89	876.94	34.56	6.99
98.44	34.67	77.68	456.09	270.06	347.37	345.78	876.45	56.67	4.55
167.35	269.89	246.78	345.98	378.84	268.36	567.78	348.98	23.45	6.55
11.87	1.89	77.59	456.00	45.98	456.87	245.67	465.98	37.47	7.66
189.00	56.78	9.67	234.56	458.02	239.94	246.34	374.88	56.78	4.76
27.58	248.99	56.89	765.45	44.68	345.74	234.89	236.88	88.83	3.57
678.56	345.67	.88	678.84	245.86	237.84	897.45	348.99	34.56	7.63
88.45	1.11	234.67	567.98	6.99	487.98	458.56	264.88	78.56	8.54
900.56	2.33	67.89	347.98	.77	204.04	246.56	345.76	87.34	7.63
234.57	567.89	457.78	456.93	244.67	745.98	678.45	384.75	45.56	7.84
70.56	678.90	370.98	765.34	566.78	247.64	356.74	238.77	67.67	7.93
169.27	34.56	579.48	874.09	499.88	874.38	284.74	348.99	20.34	7.53
987.06	234.68	874.09	876.04	238.76	233.57	567.09	347.88	56.45	7.95
478.83	456.78	258.98	874.98	55.09	344.89	245.74	347.77	67.78	7.78
69.49	11.78	67.58	348.98	88.99	6.78	385.98	274.88	45.67	8.98
168.88	5.79	269.06	234.78	888.99	234.67	888.88	247.88	99.45	7.45
195.04	689.46	67.58	987.09	444.77	45.67	234.56	348.99	67.45	8.75
69.37	90.67	258.09	458.98	666.99	334.89	287.09	456.88	67.78	8.99
199.98	236.66	468.78	765.09	276.66	78.90	458.94	236.99	34.55	4.95
27.59	8.88	258.98	458.98	688.89	5.67	374.95	345.88	67.55	7.04
887.48	156.67	468.89	853.87	.77	45.78	273.74	234.77	56.56	8.95
77.88	234.67	234.67	876.09	468.90	356.90	765.43	237.88	67.67	8.05
266.68	56.78	234.56	876.98	66.66	7.48	358.92	347.99	67.78	8.74
1.78	56.88	678.88	458.87	257.89	234.56	459.83	237.99	56.67	7.06
677.89	455.99	348.65	360.06	44.67	345.67	762.48	345.77	20.00	8.95
70.45	56.77	987.75	975.09	268.90	45.67	639.92	234.64	34.00	8.63
886.78	233.67	468.83	358.76	66.67	234.67	836.09	374.84	45.00	8.74
17.80	1.78	458.93	270.00	589.09	5.66	736.09	238.45	56.00	8.06
234.56	16.47	745.83	456.84	458.79	246.56	984.00	987.64	56.06	8.67
1.67	18.90	234.56	560.37	44.89	456.67	988.77	347.45	90.05	7.05
56.89	344.56	987.09	278.04	588.09	889.56	776.64	567.84	45.56	8.03
258.99	455.78	345.67	387.09	688.58	344.67	763.09	237.74	45.67	2.03
57.77	25.67	876.98	468.98	355.09	468.78	983.64	889.66	67.56	4.06
188.58	889.45	236.78	346.85	677.08	566.78	872.09	664.36	45.67	6.07
26.77	56.77	470.94	468.83	66.77	238.06	984.63	274.98	58.99	8.06
1.67	245.67	900.00	864.05	368.09	671.66	872.89	984.37	34.55	8.99

LESSON 102.

Find the simple interest in the following:

1. \$752.50—4 yrs. 11 mo. 9 da.—6%
2. \$3,560—9 yrs. 10 mo.—8%
3. \$1,540—9 mo. 20 da.—6%
4. \$610.15—7 yrs. 11 da.—7%
5. \$1,116—3 yrs. 11 mo. 11 da.—5%
6. \$17,500—2 yrs. 1 mo. 10 da.—4½%
7. \$350.40—5 yrs. 5 mo.—7%
8. \$2,400—7 yrs. 1 mo. 19 da.—10½%
9. \$900—4 yrs. 1 mo. 6 da.—7%
10. \$400—1 yr. 7 mo. 2 da.—7½%
11. \$150—6 yrs. 3 mo. 18 da.—8%
12. \$1,200—3 yrs. 4 mo. 15 da.—9%
13. \$840—5 yrs. 5 mo. 9 da.—10%
14. \$366—2 yrs. 11 mo. 27 da.—12%
15. \$1,800—6 yrs. 9 mo. 25 da.—5½%

SPECIAL.

Note—At close of Lesson 4, divide your time. Spend one-half in reviewing Lessons B-1 to 4 inclusive, going over these same problems time after time and the remainder of your time spend on the advance work, lessons 5 to 139.

MULTIPLICATION.

Advance Work.

LESSON 5.

MULTIPLICATION

(See note below.)

1. 25 x 67
2. 33 x 18
3. 19 x 56
4. 72 x 34
5. 59 x 77
6. 724 x 86
7. 615 x 91
8. 592 x 45
9. 923 x 37
10. 675 x 59
11. 467 x 35
12. 545 x 43
13. 675 x 88
14. 927 x 34
15. 409 x 73
16. 1,435 x 72
17. 708 x 95
18. 5,750 x 13
19. 909 x 18
20. 6,348 x 96
21. 4,832 x 59
22. 3,945 x 71
23. 6,723 x 64
24. 8,429 x 39

LESSON 6.

MULTIPLICATION

1. 723 x 55
2. 843 x 82
3. 612 x 71
4. 835 x 48
5. 469 x 96
6. 6,832 x 345
7. 4,628 x 176
8. 7,841 x 671
9. 4,516 x 462
10. 2,919 x 254
11. 7,831 x 4,531
12. 4,219 x 7,953
13. 6,394 x 7,597
14. 5,456 x 8,721
15. 8,756 x 2,479
16. 72,613 x 1,584
17. 16,385 x 4,519
18. 65,438 x 5,726
19. 18,543 x 9,827
20. 6,271 x 8,395
21. 1,518 x 3,817
22. 5,139 x 1,628
23. 9,382 x 3,916
24. 8,271 x 1,924

Note—To multiply 25 x 67, hold 25 at the extreme right of the machine and strike 7 times, then move all fingers one place to the left and press 6 times. To prove, reverse problem and hold 67 and press 5 times, then move all fingers one place to the left and depress twice. Compare answers; they must be the same. In multiplication make use of the 1st, 2nd and 3rd fingers of both hands, and in extreme cases the thumbs.

LESSON 101.

Find % (to 3 Decimal Places) Gain over previous year.

Express answer as 75.567%.

	1916	1917
1.	17,500	19,225
2.	12,465	14,535
3.	11,429	13,330
4.	18,165	19,465
5.	14,687	17,363
6.	9,784	12,765
7.	14,751	19,763
8.	19,171	23,175
9.	7,681	12,841
10.	17,543	19,465
11.	8,176	12,765
12.	2,175	5,761
13.	17,475	19,785
14.	6,832	10,365
15.	9,651	12,775
16.	1,275	5,376
17.	983	1,276
18.	7,453	9,728
19.	18,450	19,376
20.	19,600	21,760

Note: Divide Gain by 1916 Amt. Find Dec. Point then move it 2 places to right for the %.

LESSON 7.

MULTIPLICATION.

1. 1,215 lbs. @ \$12.50 per C.
2. 1,165 lbs. @ \$10.75 per C.
3. 2,115 lbs. @ \$21.50 per C.
4. 6,115 lbs. @ \$17.05 per C.
5. 2,250 lbs. @ \$.65 per C.
6. 325 lbs. @ \$13.50 per C.
7. 2,970 lbs. @ \$ 4.50 per M.
8. 5,748 lbs. @ \$11.50 per M.
9. 7,583 lbs. @ \$.75 per M.
10. 25,365 lbs. @ \$35.45 per M.
11. 63,546 lbs. @ \$15.00 per M.
12. 29,563 lbs. @ \$25.50 per Cwt.
13. 475 Boxes, 50 to each box, @ \$80.50 per M. (See rule below.)
14. 1,254 Boxes, 75 to each box, @ \$65.83 per M.
15. 365 lbs. Freight @ 27½c per Cwt.
16. 547 Boxes, 125 to each box, @ \$84.52 per M.
17. 1,295 Boxes lace, 45 yds. to a box, @ \$1.15½ per C yds.

Note—Point off 2 additional places for C or Cwt. and 3 for M.

COMPOUND MULTIPLICATION.

MULTIPLYING THREE OR FOUR NUMBERS TOGETHER WITHOUT CLEARING MACHINE.

Multiply 475x50 as before, right to left, leaving result (23750) in the machine. You must now multiply 23750 by 80.50 but as 23750 is in the machine once you must place it only 80.49 more times. Therefore, multiply by 80.49 instead of 80.50 (one less always) from left to right on the machine, holding 80.49 so that the 9 (the last figure) is held directly over the 2 (the figure farthest to the left on the dials). The dials now indicate the number of times the keys are to be depressed. Press twice (according to the dial) then move the fingers one column to the right and press 3 times, move again to the right. and press 7 times, then move and press 5 times, then move but do not press (0 on the dials).

Point off from the right of the machine as many decimal places as there are decimal places in all the numbers. In this problem, 2 in 80.50 and 3 for M, totaling 5 in the answer.

Proceed in the same manner where 4 or 5 numbers are to be multiplied together. Proceed with the 4th same as the 3rd, etc.

LESSON 100.

TEXAS CO.		SALES DEPT.	No. 8177	TULSA, OKLA.,9-21-16
7 EMPTY OIL BBLs			QUOTATION	CITY.
BY THROWER.		.75		NET
TEXAS CO. P L ACCT			No. 332	PIPE LINE
10 SET 2" COLLAR LEAK CLAMP COMPLETE				
W/BOLTS & RUBBERS		.90		20%
CASH SALE				NET \$ 2.05
1	30 x 3 GRAY TUBE			.12
1	1" MALL TEE			26 1/4
4	1" COMP LIP UNIONS			.06 1/2
2	1 x 6 NIPP			.75
1	1" B W 1 COCK			.60
2	5 GALS. CANS CYLINDER OIL		Per Gal.	
1	SPUDDING PULLEY W/BUSHING			
	FOR No. 2 Rig	\$25.00		5%
1	FORIE PIN			NET \$ 1.50
1	N S CO PAT C S DBLE BLOCK 24"		NOTED	32.00
1	3 1/2" CALIF PAT CASING HOCK	\$33.50	NOTED	20%
UNCLE SAM OIL CO				LINDSAY, OKLA.
1.	2 1/4' x 2500' MANILA CABLE No. 2669	4815 lb		
		.23 lb		NET

LESSON 8.

ACCUMULATION.

$$\begin{array}{r} 1. \quad 69 \times 48 \\ 85 \times 39 \\ \hline 27 \times 15 \end{array}$$

$$\begin{array}{r} 2. \quad 62 \times 71 \\ 83 \times 82 \\ \hline 46 \times 53 \end{array}$$

$$\begin{array}{r} 3. \quad 78 \times 67 \\ 86 \times 35 \\ \hline 25 \times 29 \end{array}$$

$$\begin{array}{r} 4. \quad 364 \times 97 \\ 138 \times 836 \\ \hline 612 \times 524 \end{array}$$

$$\begin{array}{r} 5. \quad 463 \times 79 \\ 638 \times 428 \\ \hline 245 \times 126 \end{array}$$

$$\begin{array}{r} 6. \quad 176 \times 751 \\ 287 \times 129 \\ \hline 963 \times 783 \end{array}$$

$$\begin{array}{r} 7. \quad \text{Accumulate—} 1 \times 2 \times 3 \times 4 \\ 8. \quad \text{“} \quad 5 \times 6 \times 7 \times 8 \\ 9. \quad \text{“} \quad 9 \times 10 \times 11 \times 12 \\ 10. \quad \text{“} \quad 13 \times 14 \times 15 \times 16 \times 17 \\ 11. \quad \text{“} \quad 18 \times 19 \times 20 \times 21 \times 22 \\ 12. \quad 354 \times 298 \\ 65 \times 6452 \\ 343 \times 66 \\ 465 \times 4546 \\ \hline 66 \times 82 \end{array}$$

$$\begin{array}{r} 13. \quad 13 \times 29 \\ 69 \times 83 \\ 143 \times 97 \\ 2116 \times 94 \\ 713 \times 42 \\ \hline 68 \times 74 \end{array}$$

$$\begin{array}{r} 14. \quad 191 \times 37 \\ 297 \times 85 \\ 151 \times 113 \\ 287 \times 191 \\ \hline 416 \times 817 \end{array}$$

$$\begin{array}{r} 15. \quad 29 \times 113 \\ 132 \times 87 \\ 46 \times 95 \\ 187 \times 189 \\ 32 \times 151 \\ 767 \times 235 \\ 463 \times 254 \\ \hline 632 \times 289 \end{array}$$

$$\begin{array}{r} 16. \quad \text{Accumulate—} 1 \times 5 \times 10 \times 15 \\ 17. \quad \text{“} \quad 2 \times 4 \times 6 \times 8 \times 10 \\ 18. \quad \text{“} \quad 3 \times 6 \times 9 \times 12 \times 15 \\ 19. \quad \text{“} \quad 7 \times 11 \times 13 \times 17 \\ 20. \quad \text{“} \quad 12 \times 16 \times 18 \times 20 \times 22 \\ 21. \quad \text{“} \quad 13 \times 15 \times 17 \times 19 \times 21 \\ 22. \quad \text{“} \quad 14 \times 16 \times 18 \times 20 \times 24 \\ 23. \quad \text{“} \quad 1 \times 3 \times 5 \times 7 \times 9 \times 11 \\ 24. \quad \text{“} \quad 17 \times 19 \times 21 \times 23 \\ 25. \quad \text{“} \quad 14 \times 16 \times 18 \times 19 \times 20 \end{array}$$

Note—Problems 1, 2, 3, 4, 5, etc., are solved by multiplying from the right to the left in the ordinary manner, without cancelling between each operation.

Note—Problems 7, 8, 9, 10, 11, 16, 17, 18, etc., are compound multiplication. Follow rule on page 22.

LESSON 99.

1.	2.	3.
\$ 1.47	\$ 2.80	\$ 1.71
1.12	.98	.49
.50	2.38	2.59
.84	4.06	1.68
.91	3.08	101.98
1.05	2.45	1.71
.50	2.10	1.61
1.26	6.20	1.68
1.47	3.60	.77
1.47	2.73	.70
2.24	.56	.50
.50	.77	.56
.50	.63	.50
1.33	1.33	2.59
2.17	1.26	2.47
.70	4.27	.63
1.19	3.29	.38
11.05	1.89	20.59
3.78	3.29	1.76
8.30	1.33	2.59
6.80	2.38	.76
7.56	2.38	.57
2.10	2.66	
19.60	2.59	
4.83	.98	
7.70	1.96	
19.51	.50	
3.01	3.78	
1.12	3.22	
16.93	2.87	
5.40	.91	
3.15	2.03	
3.57	2.94	
2.03	3.01	
3.22	3.71	
6.79	4.13	
4.55	.70	
2.38	2.94	
1.75	8.61	
1.68	2.94	
.56	3.50	
2.94	5.80	
2.03	1.50	
8.05	1.19	
5.74	1.26	
3.08	3.43	
1.26	5.11	
	3.01	
	3.57	
	.50	
	13.56	
	1.19	
	4.97	
	2.73	
	8.25	

LESSON 9.

THREE METHODS OF MULTIPLICATION.

Note—In this lesson change all fractions to decimals according to cards furnished by the machine companies, for instance $2/3 = .6667$, $1/3 = .3333$, etc.

LESSON 9A.

- Right to left.
1. $18\frac{3}{4} \times 15\frac{3}{8}$.
 2. $26\frac{1}{2} \times 5-9/16$
 3. $37\frac{7}{8} \times 23\frac{1}{4}$
 4. $61-8/16 \times 85-5/12$
 5. $152\frac{1}{2} \times .187\frac{7}{8}$
 6. $2.32\frac{3}{4} \times 1.51\frac{1}{4}$
 7. $1.6-2/3 \times 14\frac{1}{2}$
 8. $72.2 \times 5-15/16$

Note — In Lesson 9A simply change fractions to decimals and then multiply as if the numbers were whole numbers. Point off in the answer as many places as there are decimal places in the two numbers, from the right of the machine to the left.

LESSON 9B.

Left to right.

1. $27\frac{1}{8} \times 10\frac{3}{4}$ (see below)
2. $65-7/12 \times .061\frac{1}{2}$
3. $57\frac{1}{2} \times .16\frac{3}{4}$
4. $54.5\frac{1}{2} \times 7.95$
5. $81\frac{3}{4} \times 15\frac{1}{4}$
6. $544\frac{1}{2} \times 1.71\frac{1}{2}$
7. $.222 \times 15\frac{3}{4}$
8. $878 \times .161\frac{1}{2}$

Note—Change $27\frac{1}{8}$ to 27.125 and $.10\frac{3}{4}$ to .1075. Multiply from the left of the machine, holding 1075 at the extreme left of keyboard, depress twice, then move all fingers one place to right then press 7 times, then move and press once, then move to the right one place and press twice and move and press 5 times. Point off on the dials as many places from the extreme left of the dials as there are places of whole numbers in both numbers. In this problem 2 places in $27\frac{1}{2}$, 2 and 7, and none in $.10\frac{3}{4}$. Therefore point off 2 places from the left on the dials. In problem 86, two places of whole numbers 5 and 4 in $54.5\frac{1}{2}$ and one, 7 in 7.95 total 3 places on the dials from the left of machine to the right.

LESSON 98.

1.	1. (Cont'd)	2.	2. (Cont'd)	3.	3. (Cont'd)
\$1.00	\$ 3.00	\$1.70	\$ 1.40	\$3.15	\$.77
1.75	10.22	2.02	1.12	.63	1.82
1.26	.84	1.38	1.12	1.82	1.26
1.19	9.90	.84	1.12	1.12	.50
3.22	2.00	.56	1.68	1.82	1.40
1.00	3.57	1.61	3.73	.98	1.89
3.97	2.52	.07	542.38	.84	.70
1.12	1.89	.91	136.08	.98	.98
.50	.50	.98	89.21	.63	1.33
1.26	2.31	.50	4.20	1.26	2.03
.77	1.40	.56	1.19	1.54	1.19
.50	.56	.56	1.75	.63	.50
1.47	3.43	.84	1.54	2.66	.50
1.05	2.87	.77	1.40	1.54	2.10
.91	2.10	1.27	.07	.84	.84
.63	1.05	1.46	2.31	2.24	1.12
1.26	1.75	1.21	1.68	1.40	1.68
2.03	1.26	1.00	2.38	1.47	2.10
2.38	1.19	1.05	1.33	2.52	.42
2.10	1.40	1.00	1.54	.91	1.19
.70	56.00	2.83	.56	.63	.98
1.68	7.16	.70	1.19	.77	.91
.56	25.19	1.54	1.40	3.15	.70
4.41	2.51	.91	.70	.50	1.19
1.40	1.05	2.17	.56	.84	1.68
.50	1.00	1.26	.77	2.80	1.19
1.19	2.75	.42	.50	2.38	.49
6.95	4.05	1.12	.50	.50	.14
3.99	1.00	.42	.06	1.26	.12
1.19	1.78	1.54	.49	.70	1.00
.50	1.46	.98	1.26	.70	.84
6.30	_____	.50	.50	2.10	1.82
.77		1.40	.56	.50	.70
9.38		.91	.77	1.96	1.05
.50		.70	_____	.98	2.10
(Cont'd)		(Cont'd)		(Cont'd)	

LESSON 9C.

Fixed Decimal.

1. $943\frac{1}{2} \times 9.4\frac{1}{4}$
2. $468 \times .00-15/16$
3. $943 \times .12\frac{3}{4}$
4. $723 \times 1.16\frac{1}{2}$
5. $947 \times 13/16$
6. $163 \times .1-7/12$
7. $191 \times .45\frac{3}{4}$
8. $268 \times 1.01\frac{1}{4}$
9. $73 \times 17-1/3$

Note—Commence at the right and count to the left and set a decimal point between the 5th and 6th rows or dials. This point remains there and shows decimal point in answer without any calculating of number of decimal places in your numbers. All numbers to the left of this point are whole numbers, all to the right decimals. Hold one of your numbers in the proper position, whole numbers to the left of the point and decimals to the right and press keys in this position if you are multiplying by 1 to 9 (inclusive) units. If by 10 to 99 (inclusive) units, move

all fingers one place to the left to strike the tens of units, then back one place to the starting point for the units, etc. If multiplying by 100 to 999 (inclusive) units move all fingers, two places to the left and depress keys, then move to the right, etc. If multiplying by a number which has no whole number and the first figure is tenths, (.763) move all fingers one place to the right before commencing the multiplication. If the first figure is hundredths (.073) move to the right two places before striking keys, etc.

To solve problem 1, lesson 9C, hold 943 to the left of the decimal point and 5 to the right. As the first figure to multiply by is 9 units, press 9 times in this position, then move all fingers to the right and press four times, then move and press twice, then move to the right and press five times. The decimal point is in the proper position.

LESSON 97.

1.

\$12.40

2.
\$3.15

5.05

.98

1.82

4.13

4.34

6.51

4.10

2.45

.91

4.90

1.82

2.17

1.82

5.95

2.59

5.75

4.13

6.30

1.05

2.45

1.33

1.68

5.32

3.15

1.89

8.80

2.73

3.92

2.10

6.00

4.90

2.80

5.60

1.68

3.43

2.10

4.69

3.30

3.29

2.24

3.01

4.90

4.25

10.05

4.55

6.16

3.36

3.75

6.79

2.94

3.15

2.10

3.57

5.39

1.22

1.33

3.43

3.08

3.71

.77

3.22

3.57

2.03

3.01

4.41

.50

2.45

.84

4.06

3.08

3.15

1.40

6.02

2.87

5.39

1.82

6.20

1.26

3.01

1.19

10.64

1.26

6.71

3.22

2.87

3.85

3.36

6.58

3.01

3.00

3.15

8.40

2.59

7.90

1.47

2.87

2.94

LESSON 10.

1.	2.	3.	4	5.	6.
\$18.00	\$2.00	\$1.00	\$3.00	\$5.00	\$12.50
12.50	2.00	1.25	3.00	4.50	8.00
23.00	2.50	2.00	4.50	2.50	24.00
20.00	1.98	.65	5.00	.50	20.00
15.00	1.98	.20	2.50	.75	6.00
18.00	3.50	.35	4.00	10.00	8.00
20.00	5.00	4.35	6.00	7.50	7.50
25.00	3.50	2.40	5.25	5.00	5.00
10.00	2.50	1.00	4.00	2.25	25.00
9.98	2.00	.75	3.50	.75	6.00
20.00	2.00	.90	2.00	.25	5.00
10.00	1.50	3.50	2.50	.35	3.50
12.50	1.98	.85	4.00	5.00	7.50
9.98	.50	.90	3.50	.50	12.00
7.50	.75	4.00	4.00	.75	20.00
25.00	3.00	1.30	4.00	6.00	
15.00	3.50	.45	5.00	8.00	
20.00	5.00	.50	3.50	7.50	
12.50	.50	2.50	2.00	1.25	
6.00	2.00	2.35	3.50	.30	
5.00	2.00	1.75	1.50	.25	
10.00	.75	1.00	1.00	3.00	373.46
17.50	3.50	.25	5.00	3.50	64.19
5.00	3.50	.50	3.25	5.00	39.30
10.00	2.00	.25	4.00	5.00	91.50
7.50	1.50	.10	2.00	5.00	96.40
8.50	2.00	.75	2.00	7.50	170.00
	.75	3.50		3.50	
	.50				

7

Lesson 10 continued on next page.

LESSON 96.

1.	2.	3.
\$5.80	\$0.59	\$4.13
4.13	.59	4.13
4.13	1.64	8.19
8.19	.68	4.76
4.76	.58	4.06
4.06	.47	3.29
3.29	.41	2.87
6.65	.36	2.52
2.87	.35	2.45
7.00	.18	1.26
2.52	.41	2.87
2.45	.31	2.17
1.26	.60	4.20
2.87	.09	.63
2.17	.78	5.46
4.20	.39	2.73
.63	.26	1.82
5.46	.15	1.05
4.95	.57	3.99
2.73	2.53	1.61
9.25	.61	12.64
6.82	.81	4.27
.50	.12	5.67
1.05	.21	.84
3.99	.46	1.47
1.61	.34	3.22
7.90	.42	2.38
12.64	.39	2.94
4.27	.21	2.73
5.67	.10	1.47
.84	.46	.70
1.47	.60	3.22
3.22	.28	4.20
2.38	.68	1.96
2.94	.44	4.76
2.73	.23	3.08
1.47		
.70		
3.22		
4.20		
6.10		
4.00		
1.96		
4.76		
3.08		

8.	9.	10.	11.	12.	13.
\$ 4.50	\$ 0.56	\$ 6.70	\$ 0.10	\$ 9.10	\$ 1.22
.46	1.20	4.50	.56	4.78	5.67
2.50	1.09	.34	.78	.34	4.20
.62	5.56	7.89	1.40	.43	7.80
.35	.23	1.20	.34	.20	1.33
6.71	.45	.45	3.45	.10	.26
3.40	4.50	.67	13.16	2.90	.71
.88	.33	2.40	2.45	5.60	.18
.08	5.70	5.60	6.06	5.67	1.04
2.10	2.30	11.22	.33	8.30	3.07
6.73	5.60	9.04	3.45	.24	.81
14.75	3.40	.46	11.20	.10	8.03
3.00	10.45	1.13	4.67	4.56	13.17
.28	2.34	.49	3.20	11.90	7.20
.56	.55	.83	4.80	.21	3.80
1.93	.57	2.14	3.60	.61	6.10
7.00	10.25	3.20	.22	1.88	2.80
.33	.64	1.37	11.18	1.31	2.60
.40	.32	.66	9.10	1.60	4.20
1.67	1.21	3.49	.34	4.70	.44
3.00	10.02	.45	1.31	8.30	14.00
8.47	.71	10.90	2.56	11.30	3.00
7.54	.88	.25	1.60	.20	.62
1.50	4.50	.40	.59	4.60	.47
2.10	.30	1.00	3.60	2.30	2.22
3.56	.25	5.56	2.80	1.40	.99
.75	1.00	.75	5.70	5.60	2.33
.56	4.32	.60	.45	.24	5.00
11.08	4.50	1.23	.54	2.00	4.50
4.02	6.70	1.46	.60	1.00	.25
1.56	3.40	.78	4.67	1.15	.10
2.00	2.45	3.25	3.25	.54	2.10
9.10	6.78	3.10	6.50	.65	6.50
.91	4.60	1.90	.40	6.75	4.55

LESSON 95.

UNCLE SAM OIL CO.

9/21/16

1 EXH VALVE W/ NUT FOR 35 H P SUPERIOR GAS ENGINE No. 41 EMERY DUST 1lb	\$5.25 .14 lb	20% NET
---	------------------	------------

WILCOX NICON & PORTER.

50 1" PL ROPE 18lb	.23 lb	NET
2 1/2" WATER GAUGE REGISTER	.36	NET
1 1/2' x 1600' SAND LINE	.08 FT.	30%

WOLVERINE OIL CO. No. 12847

1 SET CROSSHEAD BRASSES	\$10.00	
1 CONNECTING ROD STRAP C H END FOR 10 1/2 x 12 AJAX ENGINE PREPAID EXP TO AVANT, OKLA.	\$7.50	10% NET .30

WOLVERINE OIL CO. No. 12865

1. No. 33 STEEL PISTON RING FOR 3 x 2 x 3 SNOW PUMP PREPAID EXP COLLINSVILLE, OKLA.	.60	COLLINSVILLE 10% NET .25
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LESSON 11.

MULTIPLICATION.

1. 932×154
2. 186×298
3. 387×721
4. 465×132
5. 176×287
6. 354×956
7. 438×298
8. 3454×2376
9. 6798×2421
10. 1376×4597
11. 7954×4587
12. 6842×3532
13. 2465×4753
14. 6498×1221
15. 3542×5764

LESSON 12.

MULTIPLICATION.

1. 612×378
2. 945×734
3. 389×413
4. 199×857
5. 766×856
6. 978×523
7. 434×156
8. 956×589
9. 634×812
10. 2134×5456
11. 8773×3245
12. 6589×4246
13. 7524×9757
14. 3135×6567
15. 9889×4246
16. 7599×7579
17. 6345×7468
18. 8635×2156
19. 5157×5379
20. 2178×4169

LESSON 94.

Solve left to right, each item, separately,
then add.

1.	$1792\frac{1}{2}$	lb	@	\$.25
2.	$2284\frac{3}{4}$	"	"	.33-1/3
3.	$1729-1/5$	"	"	1.25
4.	1669	"	"	.68 $\frac{5}{8}$
5.	$1398\frac{7}{8}$	"	"	$1.12\frac{1}{2}$
6.	1846	"	"	$1.33-1/3$
7.	$7298\frac{1}{4}$	"	"	.02 $\frac{1}{2}$
8.	$8476\frac{1}{2}$	"	"	.03-1/3
9.	$2176\frac{5}{8}$	"	"	1.75
10.	$1893-4/5$	"	"	$2.37\frac{1}{2}$
11.	2275	"	"	.01 $\frac{1}{4}$
12.	$3796\frac{3}{8}$	"	"	.77-9/10
13.	$4496-1/5$	"	"	.06 $\frac{1}{4}$
14.	$6296\frac{1}{2}$	"	"	.16-2/3
15.	4496	"	"	.79 $\frac{5}{8}$
16.	$1822\frac{7}{8}$	"	"	.22 $\frac{1}{2}$
17.	1667	"	"	3.93 $\frac{5}{8}$
18.	$2847\frac{1}{2}$	"	"	3.33-1/3
19.	2298	"	"	7.50
20.	1828	"	"	3.75 $\frac{1}{2}$

Find amount of bill.

Note—It is impossible, sometimes, to hold all numbers of the multiplicand, hence the following rule: Split numbers into sections—for example problem 1 in this lesson. First hold 35 in regular position at the right and multiply right to left, first by 5, then 3, 7 and 6. Then go back and hold 17 in proper position (3d and 4th) columns from the right of machine) and press 5 times, move to the left one place and press 3 times, move and press 7 times and move and press 6 times. To prove this reverse the problem, holding first 35 at the extreme right of the machine and multiply by 1744. Next pick up 67 in the third and fourth columns from the right of machine and multiply right to left by 1744.

LESSON 13.

SPLIT MULTIPLICATION.

1. 67-35 x 17-44
2. 24-65 x 56-35
3. 56-27 x 13-48
4. 58-453 x 78-26
5. 53-52 x 16-23
6. 17-456 x 45-43
7. 153-18 x 21-46
8. 143-61 x 98-76
9. 13-773 x 23-65
10. 19-19-2 x 47-32
11. 48-37 x 17-299
12. 54-74 x 26-52
13. 67-41 x 68-73
14. 36-91 x 72-45
15. 57-16 x 72-82

LESSON 93.

Find amount of bill, using fixed decimal point.

19381 $\frac{1}{2}$	lb.	@	67 $\frac{7}{8}$ c
14921 $\frac{1}{4}$	lb.	@	96 $\frac{5}{8}$ c
22973 $\frac{3}{4}$	lb.	@	831 $\frac{1}{2}$ c
23445 $\frac{5}{8}$	lb.	@	621 $\frac{1}{4}$ c
33393 $\frac{3}{8}$	lb.	@	733 $\frac{3}{8}$ c
12481 $\frac{1}{4}$	lb.	@	121 $\frac{1}{2}$ c
79431 $\frac{1}{8}$	lb.	@	831 $\frac{1}{8}$ c
1943	lb.	@	15c
7594	lb.	@	151 $\frac{1}{2}$ c
19911 $\frac{1}{4}$	lb.	@	19c
8763	lb.	@	10c
2463	lb.	@	19c
19431 $\frac{1}{2}$	lb.	@	25c
18933 $\frac{3}{4}$	lb.	@	75c
Less 50—40—30.			

LESSON 14.

MULTIPLICATION.

1. 25×67
 33×18
 19×56

2. 72×34
 59×77
 86×724
 91×615

3. 37×923
 59×675
 97×432
 68×875
 73×923

4. 135×467
 342×545
 675×188
 304×927
 673×409

5. 726×1435
 95×567
 133×5750
 188×909
 3340×6348

6. 68×724
 19×516
 54×952
 73×293
 95×708

LESSON 92.

1

1916
MAY

11	KANKAKEE, ILL., REPUBLICAN.....	D	21 ³ / ₈	1	.125
	1 ¹ / ₂ PAID BY O. K. BALDWIN.				
	AG COM ON AMT PAID BY LOCAL DEALER.....				.20
25	KANKAKEE, ILL., REPUBLICAN	D	21 ³ / ₈	1	.125
	1 ¹ / ₂ PAID BY O. K. BALDWIN.				
	AG COM ON AMT PAID BY LOCAL DEALER.....				.20
	NO CASH DISC.....				

2

1916
JUNE

1	BOSTON, MASS., HERALD	117-13/15	D	.15
19	PHILADELPHIA, PA., STAR	240	S	.10
5	SAN FRANCISCO, CAL.	46-2/13	D	.26
7	SAN DIEGO, CAL.	38-2/5	D	.15
3	BOSTON, MASS., GLOBE	147-1/3	D	.15
27	PHILADELPHIA, PA., HERALD	50	D	.35
28	CINCINNATI ENQUIRER	212-1/2	D	.12
29	TOLEDO, OHIO, BLADE	280-5/12	D	.24
29	HAMLER, OHIO, BEF	122-17/25	D	.25
30	HOLGATE, OHIO, BLADE	257-4/5	D	.10
	CASH DISC 2% IF PAID ON OR BEFORE JULY 13th.			

— ८३ —

MAY
1916

C4717 ST. LOUIS G. D.	CHARGE.
REVISED RATE 800 L @	.1488
AG COM	15%
WAS BILLED 800 1 @	.1275
AG COM	15%
FIND BILL.	

LESSON 15.

MULTIPLICATION.

Mixed numbers from right of machine.

1. $\$81\frac{3}{4} \times 15$
2. $\$59 \times 24\frac{1}{8}$
3. $\$48 \times 86\frac{1}{4}$
4. $\$128\frac{3}{8} \times 234$
5. $\$625\frac{1}{2} \times 342$
6. $\$263 \times 486\frac{1}{2}$
7. $\$19\frac{3}{8} \times .16\frac{1}{2}$
8. $\$72\frac{1}{8} \times .11\frac{3}{4}$
9. $57\frac{1}{2}$ Dozen Towels @ $14\frac{1}{2}$ c dozen.
10. $251\frac{3}{4}$ Yards Carpet @ $\$2.75$ yard.
11. $59\frac{5}{8}$ Yards Carpet @ $26\frac{3}{4}$ c.
12. $\$723 \times 132\text{-}5/6$.
13. $\$476 \times 9\text{-}5/16$
14. $\$247 \times 42\text{-}2/3$
15. $\$45\text{-}7/12 \times .06\frac{1}{2}$

Note—When the dollar sign (\$) appears in problems, express only \$ and c in answer; 5 mills or more add one cent, less than 5 mills drop them. In all problems not containing dollar sign, express all decimal figures in answer, exactly as they appear on the dials.

LESSON 91.

Find amount of bill. List each item separately, then add.

1. $125\frac{3}{4}$ @ \$ $.16\frac{2}{3}$
2. $1929\frac{1}{4}$ @ $.37\frac{1}{2}$
3. $2843\frac{3}{4}$ @ $.19\frac{7}{8}$
4. $1493\frac{1}{2}$ @ $.12\frac{1}{2}$
5. 1762 @ $.18\frac{3}{4}$
6. $2968\frac{1}{8}$ @ $.33\frac{1}{3}$
7. 1362 @ 2.50
8. $1498\frac{1}{2}$ @ $.03\frac{1}{3}$
9. $246\frac{1}{2}$ @ .30
10. $1828\frac{3}{4}$ @ $1.42\frac{1}{2}$
11. 1843 @ $.12\frac{1}{3}$
12. $1729\frac{1}{2}$ @ .25
13. $1633\frac{7}{8}$ @ .50
14. $1892\frac{5}{8}$ @ $.02\frac{1}{2}$
15. $1666\frac{5}{8}$ @ $.01\frac{2}{3}$
16. $1843\frac{1}{2}$ @ $.08\frac{1}{3}$
17. $14923\frac{3}{4}$ @ $.13\frac{5}{8}$
18. $6628\frac{1}{4}$ @ 1.25
19. 798 @ .75
20. 125 @ 1.98

Solve left to right.

LESSON 16.

MULTIPLICATION.

Multiplication of whole numbers and decimals, from right of machine.

1. 655 x \$1.35
2. 93 x \$4.50
3. 1392 x \$4.50
4. 45 doz. Handkerchiefs at 36 cts. doz.
5. 105 Gross Buttons at \$5.75
6. 598 lbs. Sugar at 12 cts. lb.
7. \$46.75 x 9.38
8. \$85.50 x 15.50
9. \$59.62 x 1.125
10. \$33.25 x .0625
11. \$90.05 x .00348
12. \$33.40 x 63.48
13. \$198.70 x .01375
14. \$22.68 x 1.598

LESSON 17.

MULTIPLICATION.

Multiplication of mixed numbers from the left of the machine.

1. $455\frac{1}{2} \times 9.75$
2. $18\frac{3}{4} \times 15\frac{1}{4}$
3. $455\frac{1}{2} \times 3967\text{-}3/16$
4. $432\frac{1}{2} \times 17\text{-}5/12$
5. $97\frac{3}{4} \times 438\text{-}7/16$
6. $367\frac{1}{8} \times 493\text{-}5/12$
7. $388\frac{1}{4} \times 92\text{-}9/16$
8. $545\frac{1}{2} \times 957\frac{1}{2}$
9. $81\frac{3}{8} \times 51\frac{1}{4}$
10. $627\frac{5}{8} \times 83\text{-}1/12$
11. $1227\frac{1}{2} \times 2.50\frac{1}{4}$
12. $987 \times 5.41\text{-}1/16$
13. $294\frac{1}{2} \times 6.23\frac{1}{8}$
14. $49\text{-}11/16 \times 3.45\frac{1}{2}$
15. $694\frac{1}{2} \times 87\frac{3}{4}$

LESSON 18.

COMPOUND MULTIPLICATION.

Two or More Multiplications Without Clearing.

1. 54 x 82 x 64
2. 73 x 45 x 28
3. 63 x 32 x 18
4. 46 x 95 x 59
5. 88 x 73 x 37
6. 29 x 14 x 42
7. 68 x 33 x 12
8. 35 x 45 x 55
9. 55 x 54 x 53
10. 82 x 68 x 43
11. 12 x 19 x 14 x 38
12. 24 x 18 x 83 x 12
13. 91 x 82 x 15 x 29
14. 135 x 74 x 62 x 31
15. $36\frac{1}{2} \times 42 \times 37 \times 35\frac{1}{2}$
16. 2203 x 91 x 230
17. 2291 x 190 x 146
18. 888 x 962 x 235
19. 1246 x 642 x 480
20. 1389 x 242 x 579

Note—Follow rule on page 22.

LESSON 90.

1.	1.	2.	2.	3.	3.
	(Cont'd)		(Cont'd)		(Cont'd)
\$3.71	\$2.10	\$4.83	\$1.75	\$1.12	\$2.03
3.22	1.26	1.96	.50	1.26	1.75
2.87	1.40	1.61	1.82	2.45	1.40
5.25	2.87	1.75	.98	1.47	1.05
1.68	3.71	1.47	1.40	2.52	1.68
1.40	1.19	1.05	.49	2.59	1.12
1.19	1.19	3.92	.63	1.75	1.68
1.19	3.17	3.52	.91	1.82	1.75
.98	.91	3.15	1.54	1.12	2.24
1.82	3.08	1.26	1.89	3.01	2.38
2.59	1.75	1.47	.63	1.96	1.19
1.75	3.78	1.33	.63	.84	1.61
3.00	4.97	1.47	2.27	2.17	1.82
2.24	3.71	1.82	1.40	1.47	1.82
6.58	3.22	1.54	2.73	.50	.14
.6.44	.50	1.26	.56	6.00	.15
8.01	.50	1.68	.63	2.45	1.19
.84	1.68	2.10	.50	1.82	1.47
7.70	2.31	.91	1.47	1.05	1.75
1.82	1.47	1.47	1.89	1.96	.50
2.80	1.47	1.40	1.33	2.17	1.33
1.68	2.03	2.24	1.40	3.36	2.17
3.01	2.94	9.17	1.61	.77	1.82
.70	1.96	1.19	3.36	5.18	1.12
.98	3.71	1.33	2.31	2.10	.63
1.54	3.22	.77	4.06	1.26	2.38
1.47	2.73	1.40	1.61	.84	.98
2.38	1.19	1.75	_____	2.17	1.89
2.45	2.59	1.89	_____	2.24	1.33
1.26	1.89	.70	_____	.63	.63
1.12	.84	2.24	_____	2.87	_____
.84	2.38	1.61	_____	2.24	_____
1.68	1.19	1.61	_____	2.38	_____
(Cont'd)	_____	(Cont'd)	_____	(Cont'd)	_____

LESSON 19.

1.	2.	3.	4.	5.	6.	7.
456	\$4.55	55	\$1.20	344	\$0.45	\$3.55
340	3.31	74	1.30	221	.32	2.44
450	2.21	54	1.03	431	.43	2.45
230	.76	65	1.04	321	.43	2.34
344	.87	31	1.40	221	.22	3.44
345	.65	22	1.66	244	.24	1.56
553	1.20	24	.87	255	.24	1.67
432	1.30	22	.98	232	.20	2.45
321	.53	42	.87	432	.20	2.34
350	.65	5	.79	321	.54	2.33
366	.76	54	.69	340	.65	1.55
370	4.03	22	2.01	246	.20	1.66
307	3.02	42	1.60	277	.54	2.55
304	2.01	43	1.40	256	.32	2.34
340	2.33	21	1.33	443	.32	2.23
350	1.33	12	1.40	321	.32	2.44
350	3.21	32	1.05	367	.21	2.30
320	4.32	33	1.66	378	.32	1.77
332	5.03	20	1.55	367	.43	2.66
343	6.54	30	1.54	306	.64	1.45
343	.74	10	1.43	345	.64	2.05
331	4.43	30	1.42	340	.65	1.44
321	1.44	35	.97	303	.54	2.44
320	3.21	34	.87	330	.43	1.33
344	1.55	32	.76	320	.43	1.45
355	3.32	31	1.56	270	.43	1.55
355	.53	20	1.67	280	.54	2.04
	6.64	27	.87	278	.43	3.55

Note—Watch for decimal points. Do not omit them. This is very important.

1.	2.	3.
\$4.13	\$6.37	\$4.85
2.03	1.50	.91
1.89	1.61	3.78
1.26	2.45	2.59
1.26	.84	8.80
2.73	.70	3.01
2.66	4.34	2.73
1.75	3.15	11.00
.63	2.73	2.45
2.17	2.10	7.28
2.17	2.52	12.14
2.31	5.88	1.82
3.71	15.07	4.69
1.40	5.60	3.99
4.34	1.89	6.49
1.75	2.10	2.31
2.24	1.05	3.15
2.52	.98	3.00
1.47	1.19	6.79
3.29	5.60	7.97
1.19	1.47	4.90
2.94	.50	7.25
.50	1.54	2.52
3.29	.77	4.62
1.68	4.83	9.41
1.26	2.87	4.45
.50	2.87	13.23
1.40	1.68	1.05
2.73	3.22	3.00
2.52	1.47	1.33
3.29	1.26	9.00
3.99	2.10	7.01
.91	2.52	3.29
3.01	2.59	4.94
3.15	2.59	8.47
1.47	.50	3.00
.77	1.61	5.10
3.01	2.17	3.36
1.96	3.01	4.97
3.85	.70	1.05
1.33	1.33	
2.45	1.40	
1.96	1.68	
2.24	2.73	
1.05	2.80	
1.75	.77	
3.64	.63	
3.99	1.75	
2.38	2.03	
3.50	1.26	
1.54	1.47	
3.78	9.19	
3.85	2.52	
	2.10	
	.70	
	4.27	
	5.55	
	3.01	
	6.45	
	2.52	

LESSON 20.

SUBTRACTION.

1. 646 - 123
2. 1249 - 18
3. 648 - 24
4. 2262 - 71
5. 8923 - 61
6. 7841 - 12
7. 2938 - 1641
8. 1629 - 1280
9. 746 - 124
10. 746 - 125
11. 749 - 12
12. 31,412 - 692
13. 891 - 365
14. 912 - 312
15. 199 - 198
16. 246 - 81
17. 269 - 12
18. 1864 - 12
19. 7854 - 165
20. \$986.54 less the following, without clearing.

1.23
12.34
123.45
10.23
100.23
12.00
12.00
120.00
1.91
19.19
191.91
82.05
.01
299.99

LESSON 21.

SUBTRACTION.

1. 945 - 896
2. 761 - 674
3. 904 - 816
4. 925 - 875
5. 623 - 578
6. 820 - 758
7. 980 - 890
8. 733 - 649
9. 832 - 774
10. 855 - 768
11. 407 - 348
12. 544 - 489
13. 855 - 768
14. 964 - 787
15. 665 - 467
16. 863 - 588
17. 482 - 294
18. 866 - 577
19. 720 - 540
20. 962 - 763
21. 682 - 497
22. 611 - 363
23. 701 - 304
24. 821 - 234
25. 452 - 267
26. 713 - 409
27. 927 - 468
28. 847 - 449
29. 560 - 283
30. 650 - 384

RULE FOR SUBTRACTION.

Place the minuend in machine at the right of the calculator. The minuend now appears on the dials. Lay left hand over the dials, covering all except those where the minuend appears. Next strike the subtrahend in small figures less one. If you are subtracting 96 strike 95 in small figures. If the minuend contains more figures then the subtrahend, it is necessary to strike ciphers in small figures preceding your subtrahend until you have struck as many figures as the minuend contains. For example, 1249 - 18. Place 1249 in the machine. Lay left hand on the dials covering all the ciphers, showing only 1249. To subtract 18 it is necessary to strike in small figures, 0 over the 1 on the dial, 0 over the 2 on the dial, 1 over the 4, and 7 (8-1) over the 9. Then take your answer paying no attention to the numbers appearing under your left hand. 17001 - 1. Place 17001 in the machine. Strike in small figures, 0 over the 1, 0 over the 7, 0 over the 0, and 0 (1-1) over the one. Be sure to keep the left hand over the dials not in use. Subtraction varies from addition, when striking 9 and 0. In addition you have 9's and no 0's, while in subtraction you have 0's and no 9's. When subtracting the subtrahend, be sure to strike your ciphers and skip columns in which you are to strike 9's, unless it is a final 9, then you press 8 (9-1). We depress 0 for a final 1 (1-1).

LESSON 88.

1.	2.	3.
\$ 5.18	\$ 1.40	\$ 3.50
12.40	1.54	1.89
4.30	13.16	1.68
.50	3.92	19.73
.91	4.34	14.02
4.20	1.61	27.58
6.37	2.73	1.19
4.05	1.47	.70
16.45	.98	.91
.50	1.05	1.68
3.01	1.54	.56
.98	3.29	1.75
1.68	1.61	1.89
3.22	3.99	.84
.56	2.31	1.47
1.82	2.45	.77
4.55	15.75	1.05
6.58	1.68	1.19
8.61	1.54	1.05
2.80	2.31	1.40
3.08	4.41	1.82
4.76	.50	1.40
4.76	1.05	.77
1.49	.56	1.05
.91	.98	2.80
2.05	2.10	1.05
2.03	6.20	1.68
1.26	2.00	1.40
.56	1.68	1.40
.70	1.33	.50
3.01	.50	1.26
4.41	.49	.98
16.96	1.68	.91
2.87	1.89	1.12
5.60	1.68	.91
1.68	2.38	1.26
1.47	1.82	1.05
2.45	2.10	1.89
1.05	2.38	1.68
.77	2.66	
1.40	1.47	
4.20	.50	
2.59	3.92	
2.00	1.19	
1.96	1.47	
3.78	2.10	
1.68	1.54	
	1.54	
	.50	
	1.12	

LESSON 22.

SUBTRACTION.

31. 4145 - 3981
32. 4187 - 3299
33. 8217 - 7368
34. 7307 - 6492
35. 3211 - 2933
36. 6814 - 5842
37. 7235 - 6856
38. 6138 - 3349
39. 4723 - 2934
40. 5388 - 2389
41. 3000 - 1234
42. 5000 - 2737
43. 4000 - 1349
44. 7000 - 5738
45. 6000 - 4985
46. 5000 - 3126
47. 8000 - 4778
48. 9000 - 7879
49. 7000 - 5416
50. 8000 - 6993

LESSON 23.

SUBTRACTION.

51. 52,431 - 37,658
52. 42,315 - 18,597
53. 48,115 - 43,567
54. 91,617 - 76,928
55. 52,222 - 18,765
56. 82,336 - 36,798
57. 73,451 - 27,654
58. 62,134 - 28,456
59. 37,273 - 11,498
60. 62,130 - 38,685
61. 72,006 - 38,569
62. 60,003 - 35,742
63. 85,004 - 25,687
64. 94,052 - 76,584
65. 50,000 - 34,073
66. 36,007 - 27,129
67. 90,005 - 24,847
68. 51,020 - 38,236
69. 70,040 - 28,567
70. 79,000 - 29,325

LESSON 87.

1.	1. (Cont'd)	2.	2. (Cont'd)
\$2.10	\$1.75	\$0.98	\$1.89
.56	.56	1.96	1.61
3.36	1.33	3.50	1.68
3.64	.07	2.66	3.43
2.24	.50	1.47	1.68
1.68	2.87	18.36	.56
1.05	2.94	'210.12	.91
3.01	1.96	2.45	.50
1.54	1.75	.77	4.48
1.40	1.19	.91	2.24
1.12	.84	1.61	2.45
4.62	3.01	1.12	2.03
3.29	3.01	3.29	2.17
1.87	2.31	.70	2.94
2.17	1.33	'1.19	2.31
.91	.77	2.31	.56
.70	1.26	1.82	2.10
.56	2.66	5.11	1.61
.49	1.75	11.91	1.61
.77	2.17	1.82	2.03
1.47	1.54	2.31	1.19
1.33	2.66	'3.29	.84
.50	1.26	1.12	1.61
1.40	1.12	1.05	2.31
1.96	.84	.70	1.26
1.05	1.19	4.13	1.96
3.43	.70	3.78	3.29
1.68	2.38	1.75	2.24
3.29	6.12	2.40	2.38
1.47	2.10	4.06	2.94
1.05	1.12	1.89	
1.12	.77	.84	
1.26	1.54	1.68	
2.17	.98	2.17	
2.59	1.33	.98	
1.96	1.47	1.12	
1.50			

(Cont'd)

(Cont'd)

LESSON 24.

1.	2.	3.	4.
\$ 1.25	\$19.50	\$ 75.50	\$1,912.88
8.14	20.00	184.30	806.40
2.75	12.45	111.10	1,000.00
.65	14.52	43.95	1,250.86
.75	25.48	263.55	943.82
8.37	40.50	100.00	607.55
12.50	8.60	90.00	400.33
4.65	9.35	7.15	148.67
.83	.65	13.48	249.50
7.16	.73	2.75	2,040.00
10.28	.84	52.30	4,508.70
1.20	12.10	900.25	3,406.30
.95	.86	625.80	1,280.75
.48	.93	314.87	1,300.00
13.47	2.95	64.50	877.77
23.00	14.63	49.87	620.14
3.08	9.82	302.58	8.60
6.15	20.60	10.10	7.45
24.92	19.30	100.98	13.33
.83	22.33	78.60	286.45
.92	9.81	44.50	1,300.80
.45	8.76	79.88	1,440.00
14.86	12.57	320.65	986.70
5.80	18.19	19.10	87.80
7.26	7.63	8.50	137.40
12.00	14.60	436.75	1,500.00
5.00	4.85	135.20	885.73
4.37	9.63	44.88	236.40
6.45	12.83	65.90	13,483.86
17.83	18.10	6.01	11,456.20
2.65	7.63	7.83	88.00
1.50	2.20	4.22	24.30
6.15	7.25	8.42	106.75
12.36	3.67	1.68	46.24

LESSON 86.

1.	1.	2.	3.	4.	5.	5.
	(Cont'd)					(Cont'd)
\$1.19	\$1.68	\$4.81	\$0.42	\$3.36	\$5.74	\$1.61
3.71	2.10	.18	.20	1.68	1.96	1.68
3.22	1.26	1.19	.15	.50	10.50	.50
2.87	1.40	.51	.14	6.03	2.24	.98
5.25	2.87	1.70	.27	.19	1.19	.77
1.68	3.71	1.36	.16	1.64	1.96	1.47
1.40	1.19	1.53	.28	1.20	2.17	.91
1.19	1.19	.25	.12	1.12	2.03	.35
1.19	2.17		.66	.50	2.00	.35
.98	.91		.57	2.16	2.03	2.94
1.82	3.08		8.09	.01	1.54	1.26
2.59	1.75		.08	1.28	1.47	.84
1.75	3.78			.50	1.47	.70
2.24	4.97			2.96	1.61	.84
6.58	3.71			.50	1.19	2.10
6.44	3.22			1.00	2.94	3.15
1.75	1.68			.50	2.24	5.25
.84	2.31			.50	2.17	2.03
7.70	1.47			3.00	1.05	1.12
1.82	1.47			6.56	.42	.21
2.80	2.03			1.70	2.59	3.50
1.68	2.94			.01	2.45	.50
3.01	1.96			236.62	1.54	2.03
.70	3.71			82.56	4.69	2.31
.98	3.22			26.66	4.13	2.03
1.54	2.73			47.47	5.11	2.10
1.47	1.18			71.63	1.40	2.73
2.38	2.59			20.00	1.33	2.45
2.45	1.89			191.03	3.29	.91
1.26	.84			1.60	.50	
1.12	2.38			1.09	9.15	
.84				.64	3.36	
(Cont'd)					(Cont'd)	

LESSON 25.

MULTIPLICATION.

Permanent Decimal Point.

1.	25 x .63 $\frac{1}{2}$	
2.	37 x .18 $\frac{3}{4}$	
3.	48 x .92 $\frac{3}{8}$	
4.	75 x .63 $\frac{5}{8}$	
5.	29 x .42 $\frac{7}{8}$	
6.	55 x .73 $\frac{1}{4}$	
7.	83 x .19 $\frac{1}{3}$	
8.	38 x .22-1 $\frac{1}{3}$	
9.	67 x 4.37 $\frac{3}{4}$	65 x .38 $\frac{1}{4}$
10.	58 x 2.95 $\frac{1}{2}$	92 x .67 $\frac{1}{2}$
11.	99 x 3.76 $\frac{1}{8}$	43 x .55 $\frac{3}{8}$
12.	46x 6.34 $\frac{5}{8}$	42 x .37 $\frac{3}{4}$
13.	74 x 5.90 $\frac{3}{8}$	
14.	93 x 1.75 $\frac{1}{2}$	
15.	85 x 34.50	
16.	Accumulate	
	"	
	"	
	"	
17.	Accumulate	
	"	67 x 1.75 $\frac{1}{2}$
	"	29 x 34.505
	"	245 x 9.63 $\frac{1}{4}$
	"	88 x 59.70
	"	91 x 14.533 $\frac{3}{4}$
18.	Accumulate	
	"	56 x .3825
	"	29 x 1.37 $\frac{1}{4}$
	"	64 x 39.85
	"	69 x 6.75 $\frac{1}{2}$
	"	45 x .99 $\frac{3}{4}$
	"	38 x 33.35-1 $\frac{1}{3}$

LESSON 85.

JARECKI MFG. CO.

2 1 1/4" SQ. SKR. 1/2 RCD. WRENCHES \$2.50

TULSA, OKLA., 9/21/16

25%

JARECKI MFG. CO.

2 No. 3 1/2 MO. RAE & ROBERTS SELF-CLEANING WATER
GAUGE COMPLETE W/ GUARDS \$4.25

TULSA, OKLA., 9/21/16

45/5%

KILLMER & CO.

1 1" HORZ STD BR CHECK VAL \$1.60

TULSA, OKLA., 9/21/16

30%

1 3/4" x 10" NIPPLE

NET 61c

S. B. LONGFELLOW

COD

VANOSS, OKLA.

1 BBL. BR.

\$3.50

8 CUPS

.15

10%

EXP C O D TO VAÑOSS, OKLA.
ORDERED BY TELEGRAM

T. S. LOFTLAND

TOOLS

TULSA, OKLA., 9/21/16

4 5/8" x 6 M BOLT

\$8.62 HD.

.34

20%

2 No. 2 SAUNDERS P. C. WHEELS

.32

60%

1 16" B P HAMMER HANDLE

.10

NET

LARSON & BAILEY

TOOLS

9/21/16

67 lb L BARB ITT I

.14 lb.

NET

1 1/2" SOFT PLUG

.60

20%

BY BAILEY

SINGLE DISCOUNTS.

LESSON 26.

1.	67½ Yards at \$1.75 Yard (See rule below) —	Less 25%
2.	97 Yards at \$9.95 Yard —	" 21½%
3.	196 Yards at 50c Yard —	" 35½%
4.	76 Yards at \$1.00 Yard —	" 20%
5.	789 Yards at 95c Yard —	" 10½%
6.	72 Yards at \$4.80 Yard —	" 5%
7.	72 Yards at \$1.67 Yard —	" 9%
8.	19 Pair Shoes at \$1.83 Pair —	" 30%
9.	3 Rugs at \$3.45 Each —	" 35%
10.	15¾ Yards at 67½c Yard —	" 42½%
11.	64½ Yards at 6¼c Yard —	" 75%
12.	27 Gross at 87½c Gross —	" 17½%
13.	7⅝ Yards at 68½c Yard —	" 17%
14.	1265 Yards at 4⅜c Yard —	" 22%
15.	24½ Yards at 39½c Yard —	" 37½%
16.	4240 Ft. Lumber at \$32.50 per M. —	" 31½%
17.	378 Ft. Iron Pipe at 35c per Ft. —	" 71½%
18.	21¼ M. Cigars at \$55 per M. —	" 12½%
19.	37 Pcs. Calico at 42c Yard —	" 9%
	(18 yards to piece.)	
20.	45 Boxes Oranges at 29c Dozen —	" 8%
	(26 dozen to box.)	

RULE FOR SINGLE DISCOUNTS.

Problem:

67½ Yd. @ \$1.75 less 25%.

Multiply 67.5 x 1.75 right to left and leave result in machine. Point off three decimal places (118.125). To take off 25%, hold 25 in small figures, so that the 5 is directly over the left hand figure on the dials 1. Press once, then move to the right and press once (according to the dial), move to the right and depress 8 times, then move and press once, move and press twice, move and press 5 times. This is the same as the left to right multiplication with the exception that you hold small figures and the exact, instead of large figures less one. Next move decimal point to the left as many places as there are decimal places in the per cent. In this problem 25% = .25, move decimal point two places to the left. For 9% hold 0 and save a place for the 9. Hold the naughts on all per cents up to 10, 2% = .02, 3% = .03, etc. For 10, 20, 30, 40, etc., per cent, hold just the first figure and drop the cipher. Hold the 1, or 2, or 3, etc., over the first number on the dial. Point off then only one place in result instead of two.

LESSON 84.

C. W. RIMES, TR.
2 5" COMMON LEATHER PUMP CUPS .50

NET

LEETSKOR

GYPSY OIL CO. & G. L. MOORE
1 TYPE I. R. I. WICO IGNITER
COMPLETE W/ CAM. SPARK PLUG & KEY

\$36.00

NET

HASKEKLL

FOR 35 H P SUPERIOR GAS ENGINE
COLLECT EXP. TO HASKELL, OKLA., c/o BERT ADAMS.
ORDERED BY MOORE

GULF OIL, MO

TULSA, OKLA., 9/21/16

1 18" CLUTCH PULLEY COMPLETE LESS SHIFTING LEVER
For 35 H P SUP G ENG. \$37.56
PREPAID EXP. T. C. KEIFER, OKLA. \$1.12

NET
NET

GULF PIPE LINE CO. No. 392630

TULSA, OKLA., 9/21/16

1 1-GAL. CAN TEXACO CRATER COMPOUND, 10lb
.15 SPECIAL PURCHASE NET

GYPSY OIL CO. No. 20160 KENKS
1 5 3/16" x 6 5/8" LARKIN CAVE PACKER 3917

\$44.00 50%

PREPAID TO JENKS, OKLA., c/o J. E. BELL
EXPRESS BILL ATTACHED .35

NET

LESSON 27.

CHAIN DISCOUNTS.

Use small figures only, in holding per cents.

If machine is full before chain is completed, clear and put back to the right of machine the \$ & c only, adding 1c for every 5 mills or more.

1.	18- $\frac{3}{4}$ @ 61 $\frac{1}{2}$ c—	Less	25-10-5%
2.	35-1 $\frac{1}{3}$ @ 5c—	"	10-5-21 $\frac{1}{2}$ %
3.	349-1 $\frac{1}{4}$ @ 51c—	"	25-5-5-21 $\frac{1}{2}$ %
4.	224-1 $\frac{1}{8}$ @ 37c—	"	19-15-10%
5.	243- $\frac{5}{8}$ @ 5c—	"	20-9%
6.	2240 @ \$12 per cwt.—	"	25-10-5%
7.	61-2 $\frac{3}{4}$ @ \$3.51—	"	65-5-5-21 $\frac{1}{2}$ %
8.	783 @ 53c—	"	35-10-71 $\frac{1}{2}$ %
9.	13-7 $\frac{1}{12}$ @ 59c—	"	75-10-10-5%
10.	1638 @ 41 $\frac{1}{2}$ c—	"	45-71 $\frac{1}{2}$ -5-21 $\frac{1}{2}$ %
11.	49,998 lb. @ \$14.59 cwt.—	"	85-5-21 $\frac{1}{2}$ %
12.	76-1 $\frac{1}{2}$ @ \$1.25—	"	33 1 $\frac{1}{3}$ -5-21 $\frac{1}{2}$ %
13.	48-2 $\frac{2}{3}$ @ \$4.20—	"	85-25-10-21 $\frac{1}{2}$ %
14.	36-1 $\frac{1}{3}$ @ 9c—	"	75-50-25-10-5%
15.	501 @ 8-2 $\frac{1}{8}$ c—	"	81-66-54-33-10%

Note: Chain discounts are very similar to simple discounts. In problem 1, take off the 25% leaving result in the machine, then take off 10% in the same manner from what is in the machine, and the same with the 5%.

Rule for figuring chain discounts:

When machine is filled and problem not completed, drop figures at right and put back in machine so as to take another per cent, continuing until problem is completed. In figuring amount of bill, run to end of machine then put back only dollars and cents. Five mills or more add \$0.01.

LESSON 83.

HENRY OIL CO.

		TULSA, OKLA. COLLINSVILLE SPECIAL PURCHASE
23	LB. 1/16" R R SHEET PKG.	.56 lb
25	1 3/4" SUPERIOR VALVE CUPS	.25
1	FRAME & PIN FOR 14" TRIMO WRENCH	.54
1	LONG JAW FOR 2" HVY. CRUMBLE TONGS	\$1.50
		20/10%

HENRY OIL CO

8	2 1/4" COL MAN CABLE 16lb	.24 lb	NET	TULSA, OKLA.
	(TOTAL)			
	CUT FROM No. 2844			
	CRD BY TAYLOR			
	COL EXP. COLLINSVILLE, OKLA.			

HENRY OIL CO

1 1/2	BBL. CYLINDER OIL 34 GALS.	.48 GAL.	NET	TULSA, OKLA., 9/21/16
	COL FRT COLLINSVILLE, OKLA.			
	INDIANAROLA OIL & GAS CO.			TULSA, OKLA., 9/21/16
	BLAND			

6	2" MALL TEES	.60	50/5%
6	2" STD. PLUGS	.10	55/5%
6	2" x 4" NIPPLES	.27	
6	2" x 6" NIPPLES	.38	65%
2	2" C. O. FLG UNION	.49	NET
1	1 1/4" CIRCULATION BUSHING	.60	NET

TULSA, OKLA., 9/21/16

LESSON 28.

DECIMAL EQUIVALENT OF \$1.00 MINUS DISCOUNTS.

Note—Place one unit in machine then take off per cents.

A

1. 25-10-5%
2. 5-2½%
3. 19-15-10%
4. 50-25-10-5%
5. 56-15-10-10-5%
6. 66-15-10-7½-5-2½%
7. 75-50-25-10-10-7½-5-2½%
8. 81¾-10-5-5-2½-2½%
9. 42-35-25-15-10-5-2½%
10. 33 1/3-25-10-10-7½-5-2½%

B

PROBLEMS:

1. 9 Yards Calico @ 95c—Less 25-10-5%
2. 12 Gr. Buttons @ 84c—Less 35-5-5-2½%
3. 115 Ft. Pipe @ 12½c Ft.—Less 75-10-7½%
4. 19 Ft. Lumber @ 4c an inch.—Less 5-5-5-2½%
5. 22 Yds. Carpet @ \$1.85—Less 85-10-10-5-2½%
6. 39 Yds. Carpet @ 16½c—Less 33-10-10-5%
7. 86 @ \$1.25¾—Less 45-10-10-5-2½%
8. 45 @ 95c—Less 55-10-7½%

LESSON 82.

FRICK & LINDSAY CO.
 2 1" STD BR GLVE VALVES \$1.80
 1 6⁵/₈" x 58" CASING NIPP 4.97
 1 6⁵/₈" x 17" CASING NIPPLE 1.50
 PREPAID EXP 80 BIXBY, OKLA. .42

TULSA, OKLA., 9/21/16
 30%
 NET
 20/10%
 NET

FRICK REID SUPPLY CO.
 1 JT 5-3/16" 17lb CASING 20'7" .71³/₄ FT

TULSA, OKLA., 9/21/16
 No. 2771
 NET

E. B. GEORGE
 3 2" MALL TEES .60
 3 2" STD PLUGS .10
 3 2" MALL ELLS .50
 3 2" x 5" NIPPLES .32
 2 5¹/₂" SLIM TAPER FILES \$2.90 DZ.
 1 12" M B FILE \$7.50 DZ.
 2 3/4" x 20" O MACHINE BOLTS \$28.05 HD.
 2 LB. 3/4" C I WASHERS .04³/₄ lb
 E. B. GEORGE
 1 6⁵/₈" x 4' CASING NIPP 17 lb
 ORDERED BY E. L. M.

50/5%
 55/5%
 50/5%
 65%
 65%
 20%
 NET
 \$4.35 NET

LESSON 29.

Joe Abraham

1	No. 1 Gould's Iron Hand Rotary Pump Fig. No. 1002			Bristow, Okla.
	Argur & Compton Co.			\$12.75 Net.
2	$\frac{3}{4}$ x 20" M Bolts			
	28.05 HD.			Net.
	Burke Hoffield Oil Co.			
5	Gals. Gas Engine Oil—.42 Gal.			Net.
1	5 lb. can No. 3 Cup Grease—12c lb.			Net.
65	Jts 1" Black Pipe 1198' 4"			
	7.15 HD. Ft.			Net.
3	Jts. $\frac{3}{8}$ " Do Do 57' 4"			
	2.95 HD. Ft.			Net.
6	$\frac{3}{8}$ " Mall Ells,			
6	$\frac{3}{8}$ " Do Tees,			50/5%
6	$\frac{3}{8}$ " Std. C. I. Plugs			55/5%
6	$\frac{3}{8}$ " x 6" Nipples			65%
1	8 $\frac{1}{4}$ " x 14" Casing Nipple, 24 lb.			\$4.28 Net.
1	8 $\frac{1}{4}$ " Couple for 24 lb. S. P. Pipe			
	2.25			
	Prepaid Freight on Pipe to Bixby, Okla.			20/10%
	Ordered by Hoffman. BRITTON OIL CO.			\$2.88 Net.
	10' 1 $\frac{1}{4}$ " S. P. Lea L. Belt, .30 Ft.			Tulsa, Okla, 9/21/16.
	1 54" Trimo Frame @ .80			45/5%
	1 24" Do Do Long Jaws 2.10			
	2 24" Do Do Short Do .75			
	1 5 lb. Pail Cup Grease .12			50/5%
	Ordered by H. C. Wyches.			Net.

Note—Find Total Amt. of Bill.

When item is net, there is no disc. When net is is not used and no % mentioned, take % following.

LESSON 81.

1	No. 4 EXH. CHAMBER	\$19.50	
1	WATER PLATE	1.50	20%
	FOR 25 H P SUPERIOR GAS ENGINE		
	PREPAID EXP. T. C. SPERRY, OKLA.		
5	LB. R R STUFFING BOX RINGS		.40 NET
	CROSKIE & GILLISPIE, PHILLIPS		.80 lb NET
6	1 3/4" No. 3 N S CC BALL & SEAT		TULSA, OKLA., 9/
	SPECL HARD STEEL		.65 NET
	CROSKIE & GILLISPIE, No. 39 PHILLIPS.		TULSA, OKLA., 9/
	TO REPAIRING YOUR IGNITER		\$2.75 NET
	CLARK OIL CO.		
2	1 1/4" LUNK REG GLO. VALVES		\$2.94 NET
3	1 1/4" MALL TEES	.30	50/5%
3	1 1/4" x 12" NIPPLES	.47	
3	1 1/4" x 4" NIPPLES	.17	65%
1	10" CASING CAP BLACK	8.50	
1	1" x 2" DC 1 HOLE	11.45	65%
1	3" 8 THRD X 10" NIPPLE	1.45	50/5%
2	3" MALL CAPS	.85	NET
1	10" x 60" No. 32 NIPPLE	11.35	
1	1 1/4" x 1/4" BUSHING	.07	55/5%
2	1 1/4" x 1 1/2" DO DO	.07	65%
2	1 1/2" x 4" NIPPLES	.08	50/5%
2	1 1/2" MALL CAPS	.05	

Lesson 30.

Pay no attention to Dec. Point.
Start at right to place No. in machine.
Continue to end of machine, then take answer.

SHORT DIVISION.

1.	846,229—	Divided by	1345
2.	468,387	"	2387
3.	539,475	"	4513
4.	1,598,836	"	1188
5.	3,589,638	"	3548
6.	5,358,983	"	6825
7.	25,462,924	"	3614
8.	47,684,141	"	5858
9.	63,879,432	"	7487
10.	82,274,880	"	8812
11.	11,045—	Divided by	193
12.	16,633	"	997
13.	53,752	"	9307
14.	846,322	"	949
15.	1,363,815	"	1995
16.	23,862,465	"	2916
17.	39,623,862	"	3990
18.	88,946,385	"	9986
19.	42,839,872	"	8950
20.	15,432,865	"	9998

In giving answers on above problems, give quotient and remainder.

Lesson 31.

Pay no attention to Dec. Point.
Start at right to place No. in machine.
Continue to end of machine, then take answer.

SHORT DIVISION.

1.	9328.4675	Divided by	4634
2.	927.53426	"	3.87
3.	84368.528	"	54.69
4.	6246.3825	"	.1345
5.	.02349857	"	.0075
6.	.93876243	"	.1653
7.	58.326000	"	.5214
8.	36.729890	"	.0583
9.	27.483275	"	.0094
10.	49575.775	"	.537
11.	96.340	"	8.932
12.	697.31280	"	53.97
13.	4.2009380	"	.2536
14.	43596.214	"	435.8
15.	6544.6641	"	.0327

SHORT DIVISION.

(Short Division—When one can hold all the divisor at the same time, without splitting the number.)

Place dividend in the machine. Hold the divisor in small figures less one on the final right hand figure. There are two items to be taken care of before moving to the right, the index figure and the remainder. The index figure is the figure preceding what you are holding over (on the dials), and the remainder is the number on the dials you are holding over. Depress as many times as the index figure reads and continue until the index figure does not change, then before moving, take care of the remainder, i. e., reduce it smaller (by depressing the divisor) than the divisor, then move to the right one place and proceed in the same manner, taking care of the index figure and the remainder, then moving to the right, and continue till end of machine, then take answer. At the completion, what you are holding over is the remainder, and the rest the quotient. Example—P. 42. Problem 1. $846,229 \div 1,345$.

Place 846,229 in the machine. Hold 1344 in small figures over 8462; same as in arithmetic it is not contained in 8 or 84 or 846, hence the holding over the 8462. Depress until you reduce 8462 or the four figures in their places smaller than 1345. Press six times, then move to the right. The index is again 0, simply take care of remainder 3922; press twice then move. The index is 1, press once. The index is changed to 2, press again. The index remains the same, hence leave it and then take care of remainder 9639, reducing it to 224. Your answer is 629, remainder 224.

Note—Commencing with next lesson and from this time, place all numbers in at left of machine in division.

LESSON 80.

CLARK OIL CO. No. 2—LAMBERT.

1	1½ x 3" NIPPLE	.07	65%
3	1½" REG. D. GLO. VAL. LUNK	1.21	NET
3	1½" MALL ELLS	.10	50/5%
2	1½ x 6" NIPPLES	.12	
4	1½" x 3" NIPPLES	.07	65%
3	1½" MALL ST. ELLS	.12	
1	2" x 1½" MALL REDUCER	.45	50/5%
1	1½" PIPE 18'10"	3.85	NET
2	1½" KEWANEE L UNIONS	.27	20%

TULSA, OKLA., 9/21/16.

CONTINENTAL SUPPLY CO.—No. 206 CITY. 2 2" STD. I. B. B. M. GLO. VALVES

@ \$5.40

45/5%

CONTINENTAL SUPPLY CO.—No. 181 CITY.			
2	JTS. 36 6" ¾" BLK. PIPE	4.85	NET
1	1½' x 500' WIRE SAND LINE	.08	30%

TULSA, OKLA., 9/21/16.

DEVONIAN OIL CO. & W. C. ELLIOTT—OSAGE.

1	5lb CAN No. 3 ARC. CUP GREASE	.12	NET
1	POST HOLE DIGGER SPECIAL PURCHASE	1.50	NET
1	No. 00 IDEAL GREASE CUP	1.50	50%

LESSON 32.

Rule for decimal point in Division:

Place number in machine with its decimal point. Move point to left as many places as there are whole numbers in divisor. If no whole numbers the point remains as it is. If ciphers follow decimal point as .0016 and there are no whole numbers, move point as many places to the right as there are ciphers following decimal point.

LONG DIVISION—Whole Numbers.

In all of the following problems the first 4 figures must positively be used as the trial divisor.

1. $96340000 \div 86324$
2. $69731280 \div 534285$
3. $42009380 \div 273601$
4. $43596214 \div 43596$ —Use All.
5. $65446641 \div 32622$
6. $73542096 \div 327242$
7. $37452069 \div 254376$
8. $14646456 \div 43833$
9. $21469534 \div 54686$
10. $98354200 \div 384712$
11. $82103793 \div 645387$
12. $43690000 \div 85377$
13. $75342906 \div 367242$
14. $45351426 \div 9438182$
15. $39846819 \div 167438$
16. $51630086 \div 875187$
17. $47623895 \div 918738$

LONG DIVISION.

Place dividend in machine at the left. Split divisor, always holding the first four figures of your number. Divide by this number until you complete 3 figures on the dials, then stop. Next hold the rest of the divisor in its proper position (immediately following where you held the four figures first) and press as many times as the first figure on the dials indicate. Then move to the right and press according to the second figure, then move and press according to the third figure, then stop. We now repeat the operation. Call the first 3 figures on the dials completed and part of the answer, call the figure following, the index figure and again hold the trial divisor (the first four figures of the divisor) on the key board with the fourth figure on the dials as the index figure. Finish three more figures then stop. The first six figures now showing at the left of the dials are the quotient and the rest, the remainder. Place decimal point according to previous rule, before commencing work. It is not necessary to pick up the rest of the divisor and carry it through. If in the second time over with the trial divisor you drop out of machine, hold one less on the final figure or move up one row on the key-board.

Example—P. 43, Lesson 32, Problem 1.
 $96,340,000 \div 86324$.

Place dividend in the machine at the left. Split the divisor, holding the first four figures as the trial divisor (8632) 8632 into 9634, once (press 8632 once in small figures). Move to the right and the index is 1, press once. Index remains 1, then take care of remainder; not contained. move. Index 1, press once; not contained in remainder. Stop; pick up the rest of the divisor (4—1) 3 and hold in proper column (in column following where you held 8632 the first time), press the same number of times you did the 8632, (the first three figures on the dials show the number of times), press once, then move to the right and press once and move to right and press once. You have now completed the first three figures of the dividend (these are the first three figures on the dials). Call the next figure on the dials the index figure and again hold the first part of the divisor (8632) over 2036. 5 the index, and press 5 times and then in the remainder 8871 once then move; no index, not contained in remainder 2380. Again move and as we do so we lose the 2, take one less on the final figure, so we are now holding 862, press twice (index 2) and not contained in remainder. What we were holding over last is the remainder 654, and 1116.02 is the quotient.

LESSON 79.

9/21/16
HILCREST

BARNSDALL OIL CO.

1 65/8" x 8 x 10 LARKINS BOTTOM HOLE PACKER—
No. 3559 \$50.00

50%

TULSA, OKLA.

BIRD CREEK OIL CO.

1 1 1/2 x 18 H & H TURNBUCKLE \$8.50

30%

TULSA, OKLA.

ORDERED BY BILL BARBER

BEAVER DRILLING CO.

1 BR. BBL. FOR PAGE PUMP \$5.00
1 PLUNGER COMPLETE LESS CROSSHEAD \$4.70

45%

FOR PAGE PUMP
5 LB. WHITE WASTE 16lb
1 2tb AMERICAN POP VALVE 24.00

NET
65%

TULSA, OKLA.

BURKE HOFFFIELD OIL CO.

1 4 H P TYPE—66 NOVO GAOLINE ENGINE \$300 NET
COMPLETE W. PUMP No. 22816
DELD 9/16/16
ORDERED BY HOFFMAN

TULSA, OKLA.

CANEY RIVER GAS CO.

INCOMING EXPRESS FROM MUSKOGEE, OKLA.
YOUR PUMP SENT TO BE REPAIRED
ORDERED BY MEYERS

MUSKOGEE, OKLA.

.60 NET

LESSON 33.

SUBTRACTION.

REVIEW.

1.—From	65489	Subtract	8674
2—	96980	"	9483
3—	66847	"	15686
4—	6484	"	989
5—	9699	"	1499
6—	6421	"	835
7—	21638	"	9899
8—	73487613	"	8973615
9—	84001	"	59999
10—	38433	"	8490
11—	90999	"	69999
12—	53600	"	5639
13—	38324	"	18632
14—	48000	"	21000
15—	29632	"	13962
16—	101010	"	99999
17—	4260	"	840
18—	6969	"	987
19—	2879	"	499
20—	146783	"	59687
21—	7123847	"	898989
22—	8349726	"	7514987
23—	115627	"	54855
24—	36501	"	7190
25—	19989	"	15401

LESSON 74.

1916				
JUNE				
4	BOSTON, MASS., GLOBE.....	D	594 L	1 .225
	AGT. COM. 15%.			
25	PHILADELPHIA, PA., NORTH AMERICAN.....	D	600 L	1 .17
	AGT. COM. 15%.			
	CASH DISC. 2% IF PAID ON OR BEFORE JULY 10th.			
	Find Net Amt. and Agents Com. Total.			

LESSON 75.

1916				
JUNE				
10	OTTAWA, ONT., JOURNAL.....	D	1500 L	1 .035
	CASH DISC. 5% IF PAID ON OR BEFORE JULY 13th.			

LESSON 76.

1916				
JUNE				
10	OTTAWA, ONT., JOURNAL.....	D	1494 L	1 .035
	CASH DISC. 5% IF PAID ON OR BEFORE JULY 13th.			

LESSON 77.

1916				
JUNE				
24	LONDON, ONT., ADVERTISER.....	D	796 L	1 .03
	CASH DISC. 5% IF PAID ON OR BEFORE JULY 13th.			

LESSON 78.

1916				
JUNE				
25	CINCINNATI, OHIO, ENQUIRER.....	D	600 L	1 .2125
	CASH DISC. 2% AGT. COM. IS SUBTRACTED IN THIS LESSON.			
	AGT. COM. 15%.			

LESSON 34.

1.	2.	3.	4.	5.
\$313.45	\$187.65	\$725.14	\$893.67	\$354.00
4.63	96.32	638.25	75.26	65.98
98.23	287.21	729.39	83.97	375.45
154.38	46.88	374.26	692.57	73.23
491.55	142.79	596.15	52.97	375.75
6.15	55.86	837.29	932.96	96.22
85.15	263.54	463.51	66.75	45.21
32.23	901.51	576.31	878.86	678.91
91.41	76.38	437.83	596.83	567.89
156.89	2.91	954.91	39.75	66.43
8.76	5.45	697.19	975.52	334.22
56.78	162.19	759.62	11.41	33.45
989.43	357.64	637.83	783.92	78.23
39.48	418.29	395.95	836.71	66.00
185.23	659.32	836.76	15.92	341.65
6926.15	301.54	547.87	365.29	118.45
492.18	63.41	75.64	97.82	45.15
336.15	176.25	387.99	11.53	147.53
486.93	296.38	59.12	758.38	678.89
1.96	1.00	142.55	175.83	300.00
84.32	563.84	13.96	37.91	34.42
1.53	872.19	724.00	68.52	21.18
99.64	1.95	862.15	13.82	1.91
8.17	386.31	59.63	76.83	191.51
152.51	82.17	747.88	13.68	13.12
995.13	536.21	596.39	32.99	246.79
616.14	156.88	63.13	157.12	30.00
81.00	46.29	721.21	68.15	235.21
92.00	83.48	841.91	196.43	375.45

LESSON 71.

1916
JUNE

15	PHOENIX, ARIZ., ARIZONA GAZETTE	D	294 L	1	.0255
16	WAYCROSS, GA., JOURNAL-HERALD	D	21"	1	.102
14	LOUISVILLE, KY., POST	D	294 L	1	.0595
Find Total Amt. Due.					

LESSON 72.

1916
JUNE

10	DAYTON, O., JOURNAL.....	D	800 L	1	.035
18	SEATTLE, WASH., POST-INTELLIGENCER.....	D	800 L	1	.088
	CASH DISC. 2% IF PAID ON OR BEFORE JULY 13th.				
	Find Net Am.				

LESSON 73.

1916
JUNE

15	PHOENIX, ARIZ., ARIZONA GAZETTE	D	294 L	1	.0255
16	WAYCROSS, GA., JOURNAL-HERALD	D	21"	1	.102
14	LOUISVILLE, KY., POST	D	294 L	1	.0595
15	PITTSFIELD, MASS., EAGLE	D	21"	1	.187
16	ANN ARBOR, MICH., TIMES-NEWS	D	21"	1	.17
16	HASTINGS, NEB., TRIBUNE	D	21"	1	.255
	AGT. COM. 15%.				

LESSON 35.

Two or More Multiplications Without Clearing.

Exact Time.

1. $645 \times 54 \times 82$
2. $354 \times 298 \times 85$
3. $425 \times 348 \times 69$
4. $87 \times 28 \times 100$
5. $54 \times 98 \times 65$
6. $16 \times 12 \times 20 \times 54$
7. $7213 \times 51 \times 89$
8. $2813 \times 15 \times 190$
9. $4386 \times 27 \times 238$
10. $327 \times 88 \times 4579$
11. $75 \times 6849 \times 576$
12. $18 \times 145 \times 53 \times 831$
13. $35 \times 451 \times 232 \times 81$
14. $18 \times 236 \times 50 \times 124$
15. $29 \times 36 \times 43 \times 87$
16. $268 \times 35 \times 15 \times 12$
17. $51\frac{1}{2} \times 16\frac{5}{8} \times 8\frac{3}{4}$
18. $23 \times 262 \times 31 \times 191$
19. $12 \times 151 \times 30 \times 119 \times 25$
20. $53 \times 24 \times 35 \times 29 \times 92$
21. $16\frac{5}{8} \times 1\frac{3}{4} \times 19$
22. $42 \times 13 \times 24 \times 81 \times 92$
23. $39 \times 68 \times 42 \times 90$
24. $137 \times 51\frac{1}{2} \times 26 \times 5\frac{1}{4}$
25. $271\frac{1}{2} \times \frac{3}{8} \times 16\frac{3}{4}$

LESSON 70.

1916

JUNE

16	BIRMINGHAM, ALA., NEWS.....	D	294	L	1	.051
15	BIRMINGHAM, ALA., AGE-HERALD.....	D	294	L	1	.0425
16	MONTGOMERY, ALA., ADVERTISER.....	D	294	L	1	.034
18	OAKLAND, CAL., ENQUIRER.....	D	294	L	1	.041/4
16	PUEBLO, COLO., STAR-JOURNAL.....	D	294	L	1	.021/8
14	DENVER, COLO., POST.....	D	294	L	1	.09
14	HARTFORD, CONN., TIMES.....	D	294	L	1	.041/4
15	WILMINGTON, DEL., EVERY EVENING.....	D	21"		1	.238
21	WILMINGTON, DEL., EVERY EVENING.....	D	21"		1	.238
16	ALBANY, GA., HERALD.....	D	21"		1	.123/4
16	AMERICUS, GA., TIMES-RECORDER.....	D	21"		1	.081/2
15	ATLANTA, GA., CONSTITUTION.....	D	294	L	1	.0551/4
20	ATLANTA, GA., CONSTITUTION.....	D	294	L	1	.0551/4
16	ATLANTA, GA., JOURNAL.....	D	294	L	1	.06-4/5
16	AUGUSTA, GA., HERALD.....	D	294	L	1	.021/8
16	SAVANNAH, GA., NEWS.....	D	294	L	1	.0255
15	DANVILLE, ILL., COMMERCIAL-NEWS.....	D	21"		1	.211/4
21	DANVILLE, ILL., COMMERCIAL-NEWS.....	D	21"		1	.211/4
16	EVANSVILLE, IND., COURIER.....	D	294	L	1	.0255
22	EVANSVILLE, IND., COURIER.....	D	294	L	1	.0255
14	PEORIA, ILL., JOURNAL.....	D	294	L	1	.021/8
16	ROCKFORD, ILL., STAR.....	D	21"		1	.211/4

Find total amount due.

LESSON 36.

DIVISION.

Carry out answer

1—	.4632	by .00127	3 Dec. Places Only, no remain.
2—	7.25	by 134.62	4 Dec. Places Only, no remain.
3—	.0034	by 1836.42	6 Dec. Places Only, no remain.
4—	3546.2733	by 12.4685	2 Dec. Places Only, no remain.
5—	53943.48	by 138.76	2 Dec. Places Only, no remain.
6—	8794.3754	by 34.6527	3 Dec. Places Only, no remain.
7—	.5743	by .00238	2 Dec. Places Only, no remain.
8—	8.36	by 245.73	3 Dec. Places Only, no remain.
9—	.0045	by 2847.53	6 Dec. Places Only, no remain.
10—	4657.3844	by 23.5785	3 Dec. Places Only, no remain.
11—	64954.59	by 238.87	2 Dec. Places Only, no remain.
12—	9895.4865	by 45.7833	3 Dec. Places Only, no remain.

Note—In problem 1, no attention is paid to the ciphers preceding 127 only in pointing off answer. Hold 126 in small figures.

LESSON 68.

1—10 ALABAMA SHIRTING 50, 50, 48-1/4, 49-3/4, 51-2/4, 38, 52-1/4, 51, 50-1/4, 50-2/4—8-2/4			
2—16 GAUZE 64, 64, 66, 64, 62-1/4, 67-2/4, 64, 64, 66-3/4, 66-3/4, 64, 68-1/4, 66, 66-2/4, 64, 68-1/4—3-3/4.			
3—6 BISON LL. 76, 49-1/4, 44, 44, 74-2/4, 62—6-1/4.			
4—1-11/12 JOB VESTS—600			
5—1-7/12 JOB VESTS—750			
6—1-1/3 JOB VESTS—550			
7—2 GAUZE 54, 44—3-3/4.			
8—43-2/4 GINGHAM—7-2/4			
9—2 SCOUT SHIRTS 6-2/4, 12-3/4—7-3/4			
10—3 SCOUT SHIRTS 19-2/4, 14-2/4, 17-2/4—7-3/4			
11—52-3/4 MERRIMAC SHIRTING—5-2/4			
12—2 SKRIM 63, 63—15			
13—	14—	15—	16—
44-2/4 x 15	36-1/4 x 13-2/4	106-1/4 x 9-2/4	4 x 45/4
			4 x 52/40

LESSON 69.

1—10 Gauze 86-1/4, 50-3/4, 44, 68-2/4, 76, 49-1/4, 44-3/4, 64, 50-2/4, 98 @ \$1.25	
2—1-7/12 Doz. Job Vests—\$9.50.	
3—10/12 Doz. Job Vests—\$8.50	
4—1-5/6 Doz. Job Vests—7.50	
5—4 Skrim 70, 77-1/4, 60, 63-2/4—.05	
6—8 Alabama Shirting 60-1/4, 80, 76-2/4, 96-3/4, 64, 66-1/4, 54, 98-2/4—\$1.50	
7—56-3/4 Gingham—5-2/4c.	
8—5 Hose—.50	
9—1 Collar and Cuff Set—\$1.25	
10—64 Braziers—.86	
11—9 Hose—.25	
12—14 Merimac Shirting 60-3/4, 66, 64, 64-2/4, 96, 54-1/4, 76, 50, 50-3/4, 36, 88, 84-1/4, 64-3/4, 68—\$1.75	
13—1-1/6 Job Vests—\$8.00	
14—36-1/4 Waists—\$2.50	
15—3 Skrim 66, 66-1/4, 66—.25	
16—1-5/12 Scout Skirt—\$6.68	
17—6 Gauze 50, 76-1/4, 86-3/4, 64-2/4, 63, 54—\$1.50	
18—98 Braziers, 75/15	

LESSON 37.

DIVISION.

		Divided by	47	Carry out answer
225.	537164.98	"	" 89	2 Decimal Places
226.	2174.8329	"	" 36.4	" "
227.	14736281	"	" 832	" "
228.	7341892.6	"	" .5218	" "
229.	6793.8645	"	" 78.31	" "
230.	1378256	"	" 87.23	" "
231.	56.9397	"	" 194.9	" "
232.	1098.637	"	" 98.98	" "
233.	3515.2924	"	" 4.780	" "
234.	17684.187	"	" 89.50	" "
235.	746894.13	"	" 8812	" "
236.	81274.892	"	" 94.38	" "
237.	37483.275	"	" .0853	" "
238.	36.721989	"	" 3.278	" "
239.	6545.6141	"	" 1386.42	Carry 6 Places.
240.	.0034	"	" .001279	" 2
241.	64.352373	"	" .13876	" 2
242.	943.5348	"	" 247.53	" 2
243.	8974.3587	"	" 2487.95	" 5
244.	.5473	"	" .248787	" 2
245.	6.83	"	" 6,12876	" 4
246.	.0045	"	" 45.7638	" 2
247.	5746.3845	"	" 46.87343	" 2
248.	59.65954	"	" .0014358765	" 1
249.	48.659.896	"		"

LESSON 67.

1. What is the amount of \$80 for 2 yrs. 15 da. at 5%?
2. What is the amount of \$60.85 for 10 yrs. 10 mo. 10 da. at 6%? At 4%?
3. What is the amount of \$740.10 for 1 yr. 1 mo. 18 da. at 5%? At 8%?
4. What is the amount of \$1.40 for 7 yrs. 11 mo. 21 da. at 8%? At $7\frac{1}{2}\%$?
5. What is the amount of \$121.75 for 3 yrs. 18 da. at 10%? At 12%?
6. What is the amount of \$80.65 for 1 yr. 6 mo. 12 da. at 7%? At $10\frac{1}{2}\%$?
7. What is the amount of \$365.50 for 3 yrs. 9 mo. 25 da. at 8%? At 5%?
8. What is the amount of \$262.75 for 1 yr. 5 mo. 19 da. at 6%? At 9%?
9. What is the amount of \$192.60 for 2 yrs. 2 mo. 2 da. at 5%? At 12%?
10. What is the amount of \$240 from Feb. 15, 1878, to Apr. 27, 1879. at 8%?
11. What is the amount of \$180 from May 14, 1873, to Aug. 28, 1875, at 7%?
12. What is the amount of \$137.50 from July 3, 1882, to Feb. 3, 1883, at 9%?
13. What is the amount of \$125.40 from March 1, 1882, to Jan. 10, 1883, at $6\frac{1}{2}\%$?
14. What is the amount of \$234.60 from Aug. 8, 1878, at $5\frac{1}{4}\%$?
15. What is the amount of \$153.80 from June 10, to Dec. 31, at 5%?

Note: 12% multiply by .9

LESSON 38.

DIVISION.

Carry out answer 6 figures. Drop remainder.

1.	43596214	Divided by	875324
2.	65446641	"	386274
3.	73542096	"	348247
4.	37452069	"	254376
5.	14646456	"	438338
6.	21469534	"	154686
7.	98354200	"	3874126
8.	82103793	"	6453872
9.	43698742	"	853776
10.	75342906	"	327642
11.	39846819	"	9438182
12.	52631868	"	167438
13.	47623895	"	875187
14.	2834736	"	3468735
15.	19487218	"	2587639

LESSON 65.

1. \$1000—6%—2 yrs. 6 m.
2. 250—7%—1 yr. 1 m. 1 d.
3. 300—8%—6 m. 1 d.
4. 500—9%—2 yrs.
5. 212.30—5%—1 yr. 2 m. 12 d.
6. 240—4%—1 yr. 9 m. 24 days

LESSON 66.

1. What is the interest of \$145.60 for 5 yrs. 10 mo. at 5%?
2. What is the interest of \$273.45 for 8 yrs. 3 mo. at 10%? At 8%?
3. What is the interest of \$65.30 for 1 yr. 3 mo. at 6%? At 8%?
4. What is the interest of \$640.58 for 4 yrs. 11 mo. at 5%? At 10%?
5. What is the interest of \$1000 for 1 yr. 1 mo. at $3\frac{1}{2}\%$? At 7.3% ?
6. What is the interest of \$85 for 3 yrs. 7 mo. at 7%? At $4\frac{1}{2}\%$.
7. What is the interest of \$38.10 for 6 yrs. 3 mo. at 6%? At 9%?
8. What is the interest of \$84.75 for 2 yrs. 5 mo. 21 da. at 8%?
9. What is the interest of \$208.44 for 7 yrs. 8 mo. 15 da. at 6%? At 5%?
10. What is the interest of \$356.75 for 5 yrs. 10 mo. 24 da. at 4%? At 6%?
11. What is the interest of \$184.80 for 1 yr. 1 mo. 10 da. at 9%?
12. What is the interest of \$321.70 for 4 yrs. 3 mo. 27 da. at 6%? At 4%?
13. What is the interest of \$356.50 for 3 yrs. 9 mo. 25 da. at 8%?
14. What is the interest of \$84.66 for 5 yrs. 7 mo. 20 da. at 10%? At 5%?
15. What is the interest of \$4,000 for 10 yrs. 10 mo. 10 da. at $7\frac{1}{2}\%$? At $4\frac{1}{2}\%$
16. What is the interest of \$1,262.70 for 11 mo. 27 da. at 6%? At $7\frac{1}{4}\%$?
17. What is the interest of \$504.08 for 3 yrs. 1 mo. 1 da. at 4%? At 10%?
18. What is the interest of \$3,084.90 for 7 mo. 22 da. at $5\frac{1}{2}\%$? At 12%?
19. What is the interest of \$2,016.05 for 1 yr. 1 mo. 29 da. at 4%? At 8%?

LESSON 39.

Pay Roll Work—

1—	24½	Hours at \$0.16½	Per Hour.	
2—	33⅓	" "	.25	" "
3—	127¼	" "	.09¾	" "
4—	57⅓	" "	.67½	" "
5—	275	" "	.35¼	" "
6—	27½	" "	.36½	" "
7—	92¾	" "	.14¾	" "
8—	864	" "	3.25	Day— 8 hour day.
9—	3450	" "	3.16½	" 10 "
10—	992	" "	2.75	" 8 "
11—	2705	" "	2.57½	" 10 "
12—	Accumulate—			

Problems 1-2-3-4-5.

13—Accumulate—

Problems 6-7-8-9-10.

14—33	Hours	5 Min. at 27½c	Per Hour.	
15—52	" "	10 " at 35c	" "	
16—48	" "	20 " at 22½c	" "	
17—51	" "	25 " at 16½c	" "	
18—42	" "	35 " at 15c	" "	
19—35	" "	40 " at 28c	" "	
20—65	" "	50 " at 23c	" "	
21—47	" "	55 " at 24c	" "	
22—	Accumulate—			

Problems 14-15-16-17-18-19-20-21.

23—23	Days at \$50.35	Per Month		30 days to month.
24—17	" "	62.55 " "		30 days to month.
25—26	" "	45.35 " "		30 days to month.
26—29	" "	75.00 " "		30 days to month.
27—11	" "	87.50 " "		30 days to month.
28—18	" "	58.30 " "		31 days to month.
29—25	" "	62.30 " "		31 days to month.
30—27	" "	45.85 " "		31 days to month.
31—29	" "	61.75 " "		31 days to month.
32—21	" "	87.75 " "		31 days to month.
33— 5	" "	12.50 " Week		6 days to Week.
34— 4	" "	22.75 " "		6 days to Week.
35— 4¾	" "	18.50 " "		6 days to Week.

LESSON 64.

Misc. Problems—

1. 54 Boxes—22 doz. each at 87c per doz.
 2. 265 Bolts—27½ yards each at \$1.35½ per yard.
 3. 157 Gross at 19c per dozen.
 4. 27½ Net Tons Iron at 5¾c per lb.
 5. 3¾ Gross Tons Iron at 6½c lb. Custom H. Ton.
 6. 42½ x 63¾ x 81½
 7. 1545 x 81½ x 5⅞
 8. 1216lb Coffee at \$15.55 per cwt.
 9. 2795 Cigars at \$5.45 per M.
 10. 52635lb Iron at \$12.75 per cwt.
 11. 12687 Ft. Lumber at \$37.35 per M. Ft.
 12. 39875lb Iron at \$12.75 net ton.
 13. 57970lb Iron at \$34.55 net ton
 14. 67435lb Iron at \$17.43 gross ton
 15. 46875lb Coal at \$1.95 gross ton
 16. 23687lb Coal at \$3.25 net ton.
 17. 42594lb Coal at 87½c gross ton.
 18. 47 Yards at \$1.57 per Yard—Less 23%
 19. 79 " " 5.95 " " 2½%
 20. 169 " " .45 " " 35½%
 21. 143 " " 1.25 " " 20%
 22. 879 " " .95 " " 10½%
 23. 27 " " 8.40 " " 5%
 24. 72 " " 1.76 " " 9%
 25. 576 Pieces at \$1.76 per dozen—Less 8¾%
- Net Ton, 2000lb.
 Gross Ton, 2240lb.
 C. House Ton, 2240lb.

LESSON 40.

Lumber—

1. 1165 ft. @ \$26.50 per M.
2. 26,485 ft. @ \$14.50 per M.
3. 992 ft. @ \$18.75 per M.
4. 8463 ft. @ \$7.50 per M.
5. 46,285 ft. @ \$28.50 per M.
6. 37 pieces 1 x 4 x 12 ft. @ \$7.50 per M.
7. 107 pieces 1 x 8 x 16 @ \$8.25 per M.
8. 43 pieces $1\frac{1}{4}$ x 4 x 10 @ \$6.55 per M.
9. 42 pieces 2 x 4 x 16 @ \$4.68 per M.
10. 83 pieces 4 x 8 x 24 @ \$12.65 per M.
11. 52 pieces 1 x 4 x 14 ft. @ \$31.55 per M.
12. 28 pieces $1\frac{1}{4}$ x 8 x 18 ft. @ \$26.22 per M.
13. 35 pieces 2 x 8 x 8 ft. @ \$21.75 per M.
14. 23 pieces 3 x 14 x 16 ft. @ \$28.65 per M.
15. 42 pieces 4 x 10 x 22 ft. @ \$8.67 per M.
16. 39 pieces 8 x 8 x 10 ft. @ \$12.66 per M.
17. 86 pieces 10 x 10 x 26 ft. @ \$35.42 per M.
18. 116 pieces $1\frac{1}{2}$ x 4 x 10 ft. @ \$9.87 per M.
19. 215 pieces $1\frac{1}{2}$ x 14 x 18 ft. @ \$6.23 per M.
20. 519 pieces 2 x 4 x 6 ft. 3 in. @ \$5.75 per M.
21. 621 pieces 8 x 14 x 10 ft. 4 in. @ \$21.54 per M.

Note:—In problems 6-21 multiply all items together and divide by 12. Solve by cancellation.

LESSON 63.

1.	67½	Yards at \$1.75—	Less 25%
2.	97	" " 9.95—	" 2½%
3.	196	" " .50—	" 35½%
4.	76	" " 1.00—	" 20%
5.	789	" " .95—	" 10½%
6.	72	" " 4.80—	" 5%
7.	72	" " 1.67—	" 9%
8.	18¾	" " .16½—	" 25-10-5%
9.	33⅓	" " .05—	" 10-5-2½%
10.	934¼	" " .15—	" 25-5-5-2½%
11.	422⅛	" " .37—	" 19-15-10%
12.	342⅝	" " .05—	" 20-9%
13.	2240	" " 15.00 per cwt.—	" 50-20%
Carry 2 Decimal places not counting ciphers.			
14.	70707070÷144		
15.	49332840÷888		
16.	53752÷9307		
17.	9328.4675÷4634		
18.	.02348857÷.0075		
19.	.93876243÷9216—(Carry 8 Decimal places.)		
20.	9634÷86324		
21.	42009380÷2736		
22.	65446641÷32722		
23.	524895÷697312		
24.	43596214÷43586		
25.	.0034÷1836.42		

LESSON 41.

RECIPROCAL AND PRO RATA WORK.

Find Reciprocal of following to five places besides preceding ciphers.

1—45	6—378	11—6753
2—54	7—246	12—8752
3—67	8—532	13—4839
4—85	9—847	14—140037
5—96	10—915	15—384068

Note:—Place 1 in the machine at the left and divide.

16. The L. S. & M. S. R. R. issues a ticket for \$261.25.

Penn.	846 Miles.
N. Y. C.	375 "
C. & N. W.	942 "
L. S.	1653 "

Find the rate and the cost of each Co.'s Mileage.

17. CENTRAL PASS. ASSN. Amount.

C. & A.	\$455.75
I. C.	46.25
C. & N. W.	978.45
D. & P. G.	276.00
S. R. R.	280.43
C. M. & St. P.	460.75
S. Fe	785.35
P. R. R.	934.25
C. R. I. & P.	928.04

Find Percentage of each Road.

LESSON 62.

Use small figures only.

If machine is full before chain is completed, put back to the right of machine the \$ & c.

Call 5 or more mills an extra cent.

CHAIN DISCOUNT.

1.	18-3/4	@	61 1/2c—Less 25-10-5%
2.	35-1/3	@	5c—Less 10-5-21 1/2%
3.	340-1/4	@	51c—Less 25-5-5-21 1/2%
4.	224-1/8	@	37c—Less 19-15-10%
5.	243-5/8	@	5c—Less 20-9%
6.	2240	@	\$12.00 per cwt.—Less 25-10-5%
7.	61-2/3	@	\$3.51—Less 65-5-5-21 1/2%
8.	783	@	53c—Less 35-10-71 1/2%
9.	13-7/12	@	59c—Less 75-10-10-5%
10.	1638	@	41 1/2c—Less 45-71 1/2-5-21 1/2%
11.	49998lb	@	\$14.59 cwt.—Less 85-5-21 1/2%
12.	76-1/2	@	\$1.25—Less 33 1/3-5-21 1/2%
13.	48-2/3	@	\$4.20—Less 85-25-10-21 1/2%
14.	36-1/3	@	9c—Less 75-50-25-10-5%
15.	501	@	8-3/8c—Less 81-66-54-33-10%

LESSON 42.

COST WORK.

Problem 1—	Factory Product Cost.
Productive Labor	\$536.55—1
Non-Productive Labor	185.45—2
Light and Fuel	65.37—3
Material	498.69—4
Maintenance	114.54—5
Finished Material	66.95—6

Find per cent of each to total cost.
5 decimal places.

Problem 2—	\$165.69—1
No. 1, Material	235.42—2
No. 2, Material	86.41—3
Finished Material	39.84—4
Light and Power	462.23—5
Productive Labor	216.74—6
Non-Productive Labor	18.32—7
Repairs	95.41—8
Maintenance	

Find per cent of each to total cost.
5 decimal places.

Problem 3—	Total Factory Cost \$485.32.
Dept. No. 1—	13-3/10%
Dept. No. 2—	5-7/10%
Dept. No. 3—	12-1/2%
Dept. No. 4—	8-1/4%
Dept. No. 5—	15-1/4%
Dept. No. 6—	18-2/5%
Dept. No. 7—	9-3/5%
Dept. No. 8—	11-1/2%
Dept. No. 9—	5-1/2%

Find amount each Dept. on total cost.

Problem 4—	Total Factory Cost \$516.32.
Dept. No. 1—	3%
Dept. No. 2—	10%
Dept. No. 3—	5-1/2%
Dept. No. 4—	16-1/2%
Dept. No. 5—	3-3/4%
Dept. No. 6—	9-1/2%
Dept. No. 7—	8-1/4%
Dept. No. 8—	18-1/4%
Dept. No. 9—	6-1/8%
Dept. No. 10—	1-3/4%
Dept. No. 11—	15-1/2%
Dept. No. 12—	1-7/8%

Find amount each Dept. on total cost.

LESSON 61.

SUBTRACTION.

1—From	65489	Subtract	8674
2—	96989	"	9483
3—	66847	"	15685
4—	6484	"	989
5—	9699	"	1499
6—	6421	"	835
7—	21638	"	9899
8—	73487613	"	8973615
9—	84001	"	59999
10—	38433	"	8490
11—	90999	"	69999
12—	53600	"	5639
13—	38324	"	18632
14—	48000	"	21000
15—	29632	"	13962
16—	101010	"	99999
17—	4260	"	849
18—	6969	"	987
19—	2879	"	499
20—	146783	"	59687
21—	7123847	"	898989
22—	8349726	"	7514987
23—	115627	"	54855
24—	36501	"	7190
25—	19989	"	15401

LESSON 43.

1.

Factory Product Cost, \$1,267.50.	
Productive Labor	\$486.50
Non-Productive Labor	155.50
Light and Fuel	35.00
Material	476.00
Maintenance	114.50
Find per cent of each to total cost.	

2.

Factory Product Cost, \$1,245.73.	
No. 1 Material	\$256.74
No. 2 Material	365.74
Light and Fuel	74.60
Productive Labor	348.65
Non-Productive Labor	125.00
Repairs, etc.	75.00
Find per cent of each to total cost.	

LESSON 60.

Misc. Problems—(Continued.)

1. $15\frac{3}{4}$ lb @ $61\frac{1}{2}$ ¢ per lb. Less 25-10-5%
2. $23-1/3$ lb @ $7\frac{3}{4}$ ¢ per lb. Less 10-5-21 $\frac{1}{2}$ %
3. $439\frac{3}{4}$ lb @ 51¢ per lb. Less 25-5-5-21 $\frac{1}{2}$ %
4. $242\frac{1}{8}$ lb @ 73¢ per lb. Less 19-15-10%
5. $234\frac{5}{8}$ lb @ 5¢ per lb. Less 20-9%
6. 2420 lb @ \$15.00 per cwt. Less 50-20-10-5%
7. 48563 pieces China @ \$3.25 per Gross.
8. 8476 pieces China @ 57¢ per Dozen.
9. Selling Price \$438. Cost, \$316. Find % Profit.
10. Selling Price \$816. Cost, \$935. Find % Loss.
11. Selling Price \$4,836. Cost \$3,272. Find % Profit.
12. Selling Price \$57,323. Cost \$34,161. Find % Profit.
13. Interest \$630.00—48 Days @ 5%
14. “ \$21.85—2 Months 9 Days @ 5%
15. “ \$22.55—4 Months 17 Days @ $4\frac{1}{2}$ %
16. “ \$67.20—2 Years 9 Months 18 Days @ 4%
17. “ \$363.00—197 Days @ 6%
18. “ \$538.00—1 Month 17 Days @ 3%
19. “ \$767.00—1 Year 1 Month 1 Day @ 5%
20. “ \$5,122.00—6 Months 19 Days @ $4\frac{1}{2}$ %
21. “ \$15.987.00—2 Years 3 Months 7 Days @ 9%
22. Find Cost 18 Bushels, 3 Pecks, 7 Quarts, 1 Pint, @ 43¢ per Peck.
23. “ “ 5468 Bushels, 37 lbs. Wheat @ \$1.17 per Bushel.
(60 lb to Bushel)
24. “ “ 967 Bushels, 27 lbs. Barley @ 39¢ Bushel.
(45 lb to Bushel)

LESSON 44.

INTEREST.

Rule 1—

Multiply Principal by number of days (30 days to month) — Divide by number of times rate is contained into 360.

NOTE: 3% or .03 is contained into 360—12,000 times, but we can remember where rate is contained into 360 with three figures in quotient to point off 5 places in result.

Where rate is contained into 360 giving two figures in quotient, point off 4 places in result.

Example—Find interest \$375, 4 months, 7 days at 3%, multiply 375 by 127 (4 mos. 7 days) = 47,625.

Divide by 12 and point off 5 places gives \$3.97. If rate was 5%, after multiplying divide by 72, and point off 4 places gives \$6.61.

Problems.

1—Interest on	\$287.25—	3 months	17 days at	6%
2—“	495.38—	“	21 “	5%
3—“	372.50—	“	13 “	4%
4—“	547.31—	“	23 “	3%
5—“	1968.23—	“	7 “	8%
6—“	983.27—	11 “	16 “	7%
7—“	722.94—	1 “	8 “	6%
8—“	618.00—	4 “	11 “	5%
9—“	459.83—	6 “	19 “	4%
10—“	1268.32—	9 “	28 “	3%

The above method only used where rate is even %.

Rule: Reduce mo. and da. to days. $287.25 \times \frac{\text{days}}{360} \times .06$

Rule 2—

The decimal of 1 day to a year (360 days) is .00278. To solve interest problems using above decimal, reduce months to decimal of year, plus number of days multiplied by .00278; Multiply by rate of interest; Multiply by principal.

Example: Interest \$375—4 months, 7 days at 3%, 4 mos. $\frac{1}{3}$ year plus (7x.00278) multiplied by (3% x 375) \$3.96.

Prove ten problems on previous pages using this method.

These two methods must only be used where rates are even such as 3, 4, 5, 6, 7, 8.

If uneven use Rule 3.

Note—See short interest rule on page 125. Some use this rule entirely for all interest problems. Answers in key were obtained by using this rule.

LESSON 58.

TWO OR MORE MULTIPLICATIONS WITHOUT CLEARING.

1. $645 \times 54 \times 87$
2. $345 \times 298 \times 85$
3. $425 \times 348 \times 69$
4. $87 \times 28 \times 100$
5. $54 \times 98 \times 65$
6. $16 \times 12 \times 20 \times 54$
7. $7213 \times 51 \times 89$
8. $2813 \times 190 \times 15$
9. $4386 \times 27 \times 238$
10. $327 \times 88 \times 4579$
11. $75 \times 6849 \times 576$
12. $18 \times 145 \times 53 \times 831$
13. $35 \times 451 \times 232 \times 81$
14. $18 \times 236 \times 50 \times 154$
15. $29 \times 36 \times 43 \times 87$
16. $268 \times 35 \times 15 \times 12$
17. $5\frac{1}{2} \times 16\frac{5}{8} \times 8\frac{3}{4}$
18. $23 \times 262 \times 31 \times 191$
19. $12 \times 151 \times 30 \times 119 \times 25$
20. $53 \times 24 \times 35 \times 29 \times 92$
21. $16\frac{5}{8} \times 13\frac{1}{4} \times 19$
22. $42 \times 13 \times 24 \times 81 \times 92$
23. $39 \times 68 \times 42 \times 90$
24. $137 \times 51\frac{1}{2} \times 26 \times 51\frac{1}{4}$
25. $27\frac{1}{2} \times 3\frac{3}{8} \times 16\frac{3}{4}$

LESSON 46.

Problems.

	Interest on	\$84.66—	5 years	7 months	20 days	at 10%
1—	"	"	"	"	"	"
2—	"	84.66—	5	7	20	" 5%
3—	"	4000.00—	10	10	10	" 7½%
4—	"	1262.70—	10	10	10	" 4½%
5—	"	1262.70—	11	11	27	" 6%
6—	"	504.08—	11	11	27	" 7¼%
7—	"	504.08—	3	1	1	" 4%
8—	"	3084.00—	3	1	1	" 10%
9—	"	3084.00—	1	7	22	" 5½%
10—	"	2016.05—	1	1	29	" 4%
11—	"	2016.05—	1	1	29	" 8%
12—	"	60.85—	10	1	10	" 6%
13—	"	60.85—	10	1	10	" 4%
14—	"	740.10—	1	1	18	" 5%
15—	"	740.10—	1	1	18	" 8%
16—	"	1.40—	7	11	21	" 7½%
17—	"	1.40—	7	11	21	" 8%
18—	"	121.75—	3	---	18	" 12%
19—	"	121.75—	3	---	18	" 10%
20—	"	80.65—	1	6	12	" 7½%
21—	"	356.50—	3	9	25	" 5%
22—	"	262.75—	5	15	19	" 9%
23—	"	192.60—	---	2	19	" 5½%
24—	"	137.50—	4	7	8	" 2½%
25—	"	125.40—	7	8	4	" 5%

LESSON 57.

SUBTRACTION.

1. 467 - 155
2. 752 - 371
3. 293 - 56
4. 2718 - 12
5. 99999 - 10850
6. 5630 - 77
7. 10050 - 101
8. 1000 - 909
9. 99999 - 10900
10. 48650 - 39999
11. 86450 - 49999
12. 90999 - 19999
13. 15000 - 1001
14. 36500 - 6532
15. 48676 - 15865
16. 2382 - 99
17. 4688 - 789
18. 2789 - 944
19. 6999 - 499
20. 4620 - 833
21. 10000 - 9999
22. 16233 - 8989
23. 29362 - 19362
24. 48000 - 19000
25. 33824 - 16832

LESSON 47.

CUSTOMS OR DUTIES.

1. What is the duty on 650 yards of broadcloth, invoiced at \$1.80 per yard, at 33-1/3% ad valorem?
2. What is the duty on 1500 yards of lace invoiced at 62½ cts. per yard, at 40% ad valorem?
3. What is the duty on 850 meters of French silk, invoiced at \$1.15 per meter, at 50% ad valorem?
4. A merchant imported 4 cases of Irish linen, each case containing 560 yards; what was the duty, the invoice price being 42 cts. per yard and the duty 45%?
5. A manufacturer imported from Spain 40 bales of wool, 400 lb. each, invoiced at 45 cts. per pound, and 20 bales, 350 lb. each, invoiced at 40 cts.; what was the duty, at 20% ad valorem?
6. A merchant imported 1450 yards of broadcloth, invoiced at \$2.15 a yard; 3240 yards of Brussels carpeting, invoiced at \$1.60; and 480 yards of silk, invoiced at \$2.85; how much was the duty at 35% for the woolen goods, and 50% for the silk? Find total.
7. The duty on 1250 yards of silk, at 40% ad valorem, was \$1100; what was the invoice price a yard? For how much a yard must the importer sell the silk to clear 20%?
8. What is the duty on 240 tons of bar iron at \$17.50 per ton, and 75 tons of steel at \$22 per ton?

Note: Since specific duties are levied at a given rate per pound, ton, gallon, yard, etc., their computation does not involve the principles of percentage.

9. A merchant imported from Havana 225 hogsheads of sugar, 475 lb. each, and 120 hogsheads of molasses, 126 gal. each; what was the duty at 3 cts. a pound for the sugar, and 8 cts. a gallon for the molasses? Find total.

LESSON 56.

1. 69 x 48
85 x 39
27 x 15
2. 62 x 71
83 x 82
46 x 53
3. 78 x 67
86 x 35
25 x 29
4. 364 x 97
138 x 836
612 x 524
5. 463 x 79
638 x 428
245 x 126
6. 176 x 751
287 x 129
963 x 783
7. 354 x 248
65 x 6452
343 x 66
465 x 4546
66 x 82
8. 13 x 29
68 x 83
143 x 97
216 x 94
73 x 42
68 x 74

9. 191 x 37
297 x 85
151 x 113
287 x 191
416 x 817
10. 29 x 113
132 x 87
46 x 95
187 x 189
32 x 151
767 x 235
463 x 354
632 x 289

Decimal Multiplication from right—

11. $18\frac{3}{4} \times 15\frac{3}{8}$
12. $26\frac{1}{2} \times 57\text{-}9/16$
13. $37\frac{7}{8} \times 23\frac{1}{4}$
14. $61\text{-}8/16 \times 23\text{-}5/12$
15. $152\frac{1}{2} \times 18\frac{7}{8}$
16. $2.32\frac{3}{4} \times 1.5\frac{1}{4}$
17. $1.6\text{-}2/3 \times 14\frac{1}{2}$
18. $72.2 \times 5\text{-}15/16$
19. $27\frac{1}{8} \times .10\frac{3}{4}$
20. $64\text{-}7/12 \times .06\frac{1}{2}$
21. $57\frac{1}{2} \times .16\frac{3}{4}$
22. $54.5\frac{1}{2} \times 7.95$
23. $81\frac{3}{4} \times 15\frac{1}{4}$
24. $544\frac{1}{2} \times 1.7\frac{1}{2}$
25. $222 \times 15\frac{3}{4}$
26. $878 \times .16\frac{1}{2}$
27. $843\frac{1}{2} \times 9.4\frac{1}{4}$
28. $468 \times .00\text{-}15/16$
29. $943 \times .12\frac{3}{4}$
30. $723 \times 1.16\frac{1}{2}$
31. $947 \times 3/16$
32. $163 \times .1\text{-}7/12$
33. $191 \times .45\frac{3}{4}$
34. $268 \times 1.01\frac{1}{4}$
35. $73 \times 17\text{-}1/3$

LESSON 48.

DECIMAL EQUIVALENTS.

1. 50-43-37½-30-25-15-10-5%
2. 95-10-71½-5-21½-21½%

	Subtraction.	
3.	From 64589	Subtract 8761
4.	" 99689	" 9843
5.	" 67684	" 16586
6.	" 6884	" 989
7.	" 9969	" 1499
8.	" 6240	" 835
9.	" 21633	" 9898
10.	" 84000	" 59004
11.	" 34833	" 8940
12.	" 99909	" 69999
13.	" 53600	" 5369

14. Give decimals for the following fractions:

- 1-16, 2-6, 7-12, 5-8, 15-16, 1-6, 7-16,
3-8, 1-12, 9-16, 11-12, 13-16, 8-12.

LESSON 55.

	A.	B.	C.	D.	E.	F.
1.	9873	353	251	3131	2527	7432
2.	5633	9723	984	236	987	5172
3.	986	545	9756	9356	932	473
4.	532	397	923	4568	2309	7474
5.	9357	9215	8765	453	211	5151
6.	923	6119	793	9810	9605	9821
7.	6945	542	421	5698	3454	957
8.	9506	698	987	693	8865	9387
9.	498	7325	4631	9321	4609	2354
10.	7765	4554	5775	4781	987	932
11.	9321	9209	565	5573	5654	9765
12.	2788	2354	7755	954	9867	4321
13.	9375	9265	9383	3232	898	1234
14.	8643	254	7777	5665	3031	4321
15.	6623	363	6556	5445	4498	463
16.	998	2792	9889	196	7576	212
17.	474	7483	5603	9921	924	121
18.	9351	2109	951	4895	9346	463
19.	460	465	9327	765	932	376
20.	7945	6843	232	426	467	9832
21.	9668	1924	4663	747	9832	4554
22.	5075	1795	224	9873	7653	6332
23.	6843	7141	476	2107	987	654
24.	7424	3265	789	987	6545	7653
25.	4268	2142	654	6546	765	209
26.	954	2476	3223	9873	9876	7474
27.	868	5536	6567	2143	543	624
28.	5595	6797	9786	214	611	9876

Add both ways and prove.

Add A, B, C, D, E and F results together.

Add 1 to 28 inclusive results together.

Your two answers should be the same.

(Cross foot and prove.)

LESSON 49.

COLUMN ADDITION.

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
72	87	59	39	97	11	78	26	83	91	36	21	36
59	26	24	35	14	15	52	97	45	67	43	63	12
63	13	36	82	83	83	76	84	23	32	12	97	41
27	41	54	33	28	27	36	72	11	83	67	11	45
39	63	38	43	86	75	68	52	43	14	26	13	43
59	59	81	52	62	63	64	34	63	26	74	17	75
83	97	21	25	21	36	59	59	37	68	69	24	73
46	64	12	47	63	68	86	87	33	17	62	45	33
57	41	13	75	69	36	52	35	33	84	29	36	29
43	65	43	12	25	97	65	24	76	97	29	31	45
95	27	28	26	83	33	25	78	55	38	69	13	21
69	75	31	97	65	23	54	67	76	33	19	41	26
75	15	88	11	54	44	64	52	53	96	52	62	34
63	25	37	77	93	39	83	33	42	36	87	38	34
39	66	67	38	93	35	12	62	31	84	26	42	69
83	78	34	42	36	95	59	59	52	58	75	36	39
54	26	36	39	26	41	14	39	28	97	63	12	36
75	12	28	65	97	53	67	87	48	13	59	35	53
38	11	83	28	42	32	55	13	41	14	28	78	39
59	78	68	28	43	43	68	86	74	26	91	75	73
14	63	88	78	27	27	51	35	61	44	12	19	66
13	95	67	97	75	75	85	69	61	86	83	80	46
72	36	15	78	36	36	15	78	41	36	68	52	64
86	17	41	89	12	12	79	67	36	76	33	49	57
59	17	15	65	19	19	23	49	54	23	58	56	48
74	17	54	34	49	49	98	26	26	88	87	67	45
59	79	58	77	58	58	88	57	36	46	62	54	41
14	45	35	56	87	87	66	77	32	21	44	38	43
13	43	71	54	48	48	11	42	33	99	66	69	95
12	29	24	38	45	45	35	56	43	87	11	77	32
72	21	62	54	70	70	54	86	38	48	82	42	33
86	99	44	69	29	29	24	91	42	16	87	24	51
59	49	61	26	21	21	48	36	77	38	18	27	23
74	28	52	11	96	96	13	61	48	53	64	89	27
59	75	51	42	23	23	97	26	38	54	12	83	45
63	72	38	34	61	61	55	65	33	69	82	84	28
41	42	37	19	41	41	72	31	56	62	87	83	37
91	81	63	36	24	24	63	84	67	78	58	46	41
24	31	68	84	61	61	16	62	59	77	83	53	53
83	27	72	68	73	73	57	46	38	31	27	69	96
75	44	55	66	54	54	87	55	56	94	33	33	45
69	57	23	32	53	53	67	33	63	71	34	78	96
52	65	28	52	12	12	13	64	16	36	28	97	58
93	61	25	21	69	69	48	12	57	43	43	26	61
66	41	91	53	23	23	43	86	39	42	91	93	38

Foot and cross-foot and prove.

LESSON 54.

Split Keyboard—(Accumulate.)

1. $8\frac{3}{4}$ yards at \$1.52
 $26\frac{1}{2}$ yards at $.43\frac{1}{2}$
184 yards at $.05\frac{1}{4}$
Total \$.....

2. 76 x $1.75\frac{1}{2}$
29 x 34.50
245 x $9.63\frac{1}{4}$
88 x 59.70
9 x $145.33\frac{3}{4}$
Total

3. 56 x $.83\frac{1}{4}$
92 x $.76\frac{1}{2}$
34 x $55\frac{3}{8}$
76 x $.19\frac{1}{8}$
24 x $.37\frac{3}{4}$
Total

Multiplication.—(From right of machine.)

4. $18-3\frac{3}{4}$ x $.15\frac{1}{2}$
5. $27-1\frac{1}{8}$ x $.10\frac{3}{4}$
6. $55-7\frac{1}{12}$ x $.06\frac{1}{2}$
7. $57-1\frac{1}{2}$ x $.12\frac{1}{2}$

Multiplication.—(From left of machine.)

8. $545\frac{1}{2}$ x 7.95
9. $81\frac{3}{4}$ x $15\frac{1}{4}$
10. $544\frac{1}{2}$ x $17-5\frac{1}{12}$
11. $234\frac{1}{2}$ x $438-7\frac{1}{16}$

LESSON 50.

DECIMAL EQUIVALENTS.

1. 40-10-5%
2. 5-2%
3. 66 2/3-10-5-21 1/2%
4. 29-25-15-10%
5. 40-25-5-5%
6. 56-15-25-10-5%
7. 65-50-45-25-10%
8. 24-9-5-5-21 1/2%
9. 85-45-25-10-10-10%
10. 10-10-10-9-7 1/2%
11. 27-26-17-15-9%
12. 75-50-45-10-10-10-5%
13. 85-55-45-25-10-10-5-21 1/2%
14. 69-25-20-20-10-10-10-7 1/2-21 1/2%
15. 25-22-17-15-12 1/2-5-21 1/2%
16. 50-45-39 1/2-30-25-15-10-5%
17. 95-10-10-7 1/2-5-21 1/2%
18. 33 1/3-10-10-5-21 1/2%
19. 66 2/3-10-10-7 1/2-5-5-21 1/2%
20. 20-10-10-10-15-17-12 1/2%
21. 92-10-7 1/2-10-10-5-21 1/2%
22. 10-10-10-5-21 1/2%
23. 15-10-10-7 1/2-7 1/2-5-5-21 1/2%
24. 50-10-10-10-10-7 1/2%

LESSON 53.

Accumulation—Split Keyboard—

FIXED DECIMAL POINT.

1. $25 \times .63\frac{1}{2}$
 $37 \times .18\frac{3}{4}$
 $48 \times .92\frac{3}{8}$
2. $17 \times 5.63\frac{5}{8}$
 $29 \times .42\frac{7}{8}$
 $53 \times .75\frac{1}{4}$
3. $131 \times .89\frac{1}{8}$
 $38 \times .27\text{-}1\frac{1}{3}$
 $467 \times .37\frac{3}{8}$
4. $76 \times .38\frac{1}{4}$
 $94 \times 1.67\frac{1}{2}$
 $43 \times .05\text{-}5\frac{1}{16}$
 $187 \times .95\text{-}7\frac{1}{12}$
5. $67 \times 1.75\frac{1}{2}$
 $29 \times 34.50\frac{3}{8}$
 $145 \times 9.36\frac{1}{4}$
 38×59.70
 $9 \times 145.33\text{-}1\frac{1}{3}$
6. $156 \times .38\text{-}7\frac{1}{16}$
 $1829 \times .13\frac{1}{4}$
 $69 \times 38.95\frac{1}{2}$
 $146 \times 6.57\frac{1}{4}$
 $21687 \times .09\text{-}9\frac{1}{16}$
 $38 \times 33.45\text{-}1\frac{1}{3}$
 $149 \times 1.66\text{-}2\frac{2}{3}$
7. $5412 \times .37\frac{1}{4}$
 $162\text{-}3\frac{1}{4} \times .15\frac{7}{8}$
 $1533\text{-}1\frac{1}{3} \times .52\frac{1}{2}$
8. $70\text{-}1\frac{1}{4} \times 5.25\frac{1}{2}$
 $133\text{-}1\frac{1}{3} \times .26\text{-}7\frac{1}{16}$
 $672\text{-}1\frac{1}{4} \times .48\frac{3}{8}$
9. $19\text{-}1\frac{1}{8} \times 3.06\text{-}1\frac{1}{16}$
 $455\text{-}1\frac{1}{12} \times 4.21\text{-}5\frac{1}{16}$
 $16\text{-}2\frac{2}{3} \times .77\frac{1}{4}$
10. $157\text{-}9\frac{1}{16} \times .08\text{-}7\frac{1}{12}$
 $27\text{-}3\frac{1}{4} \times 1.45\text{-}1\frac{1}{2}$
 $166\text{-}5\frac{1}{6} \times .73\text{-}13\frac{1}{16}$
 $427\text{-}1\frac{1}{12} \times 1.98\text{-}1\frac{1}{4}$
11. $256\text{-}11\frac{1}{16} \times 1.25\frac{1}{2}$
 $343\text{-}3\frac{1}{4} \times .37\frac{1}{8}$
 $275\text{-}1\frac{1}{8} \times .29\frac{3}{4}$
 $362\text{-}1\frac{1}{4} \times .05\text{-}2\frac{2}{3}$
 $450 \times .16\text{-}11\frac{1}{12}$
12. $75\text{-}1\frac{1}{2} \times 3.66\text{-}1\frac{1}{16}$
 $61\text{-}2\frac{2}{3} \times .66\text{-}2\frac{2}{3}$
 $245\text{-}3\frac{1}{4} \times 4.02\text{-}5\frac{1}{16}$
 $91\text{-}1\frac{1}{8} \times .71\frac{3}{8}$
 $545\text{-}1\frac{1}{12} \times .67\frac{1}{4}$
 $46 \times 10.68\frac{1}{4}$
 $171 \times 9.87\frac{1}{2}$

LESSON 51.

REVIEW.

Multiplication—

- | | | | |
|----|----------|-----|-------------|
| 1. | 469 x 96 | 6. | 14628 x 176 |
| 2. | 835 x 48 | 7. | 2919 x 254 |
| 3. | 612 x 55 | 8. | 4516 x 462 |
| 4. | 723 x 71 | 9. | 86832 x 345 |
| 5. | 843 x 82 | 10. | 7841 x 671 |

Two or more multiplications without clearing—

- | | |
|-----|-----------------|
| 11. | 354 x 298 x 65 |
| 12. | 6452 x 343 x 66 |
| 13. | 465 x 4546 x 82 |
| 14. | 75 x 6849 x 576 |
| 15. | 327 x 88 x 4479 |

Accumulation—

- | | | | |
|-----|------------|-----|------------|
| 16. | 364 x 97 | 17. | 1463 x 79 |
| | 612 x 524 | | 245 x 126 |
| | 1384 x 836 | | 638 x 1428 |

LESSON 52.

Split Keyboard—(From left of machine.)

1. $18\frac{3}{4} \times 2.61\frac{1}{2}$
2. $15\frac{3}{8} \times .05-9/16$
3. $237\frac{7}{8} \times .61-8/16$
4. $231\frac{1}{4} \times .85-5/12$
5. $839 \times .006-5/12$
6. $387-2/3 \times 2.62\frac{3}{4}$
7. 41×12.42
8. $161 \times 9.871\frac{1}{2}$
9. $15/16 \times .12\frac{7}{8}$
10. $1-7/12 \times 153.971\frac{1}{2}$
11. $262 \times 2.22\frac{7}{8}$
12. $12 \times 4.73\frac{5}{8}$
13. $12 \times 14.141\frac{1}{4}$
14. $8\frac{3}{4} \times 1.52$
15. $261\frac{1}{2} \times .431\frac{1}{2}$
16. $184 \times .051\frac{1}{4}$
17. $76\frac{3}{4} \times 1.751\frac{1}{2}$
18. $297\frac{7}{8} \times 3.45-7/16$
19. $24\frac{3}{4} \times 1109\frac{5}{8}$
20. $72-1/16 \times .42\frac{5}{8}$
21. $1271\frac{1}{2} \times .0009-9/16$
22. $246871\frac{1}{2} \times .008-7/12$
23. $123\frac{5}{8} \times .197\frac{7}{8}$
24. $216 \times 2.47\frac{5}{8}$
25. $16-7/12 \times 59.73-5/16$

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